Lectures
ON
INJURIES OF NERVES.

Delivered at the Royal College of Surgeons,

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LECTURE I.

MR. PRESIDENT AND GENTLEMEN,—My first duty is to offer you my sincere thanks for the honour you have conferred in appointing me to deliver these lectures. Believe me, I am very fully conscious of the responsibility which is incurred, and can assure you that it was not without some diffidence that I undertook the task. The subject I have chosen is Injuries of Nerves, and if any excuse is necessary for my choice, it is supplied by the fact that to this subject I have given the greater part of my spare time for the past six or seven years, and that what I submit to you is the best work I have to offer.

It is now some nine years ago, Sir, that my attention was first directed to injuries of the nerves by a case at that time under your own care in St. Bartholomew's Hospital. The patient was a man who had injured his ulnar nerve near the elbow-joint some months before admission, and you, Sir, performed the operation of nerve suture, an operation which at that time was new, and had been confined in its application to some few cases chiefly in the hands of continental surgeons. The novelty of this operation interested me, as did also the doubts expressed as to its success and the dangers attending it, and my curiosity was further aroused when I found, on seeking for more information, that there was little that was accurate and much that was speculative in the opinions expressed by writers on the subject. A year later another operation of a similar kind was performed by Mr. Holden; and in 1880, when acting as his house-surgeon at St. Bartholomew's Hospital, I had opportunities myself of treating by suture several divided nerves. From this time forward I determined to solve by my own observations, if possible, those problems to which I could not obtain a satisfactory answer in published works, and was stimulated to additional efforts by the award of the Jacksonian Prize of the Royal College of Surgeons to an essay of mine on "Wounds and other Injuries of Nerves" in the year 1882. That essay I did not publish, neither did I report any of the cases on which it was founded, for I was not at that time sure of my ground, and felt I had yet much to learn of nerve injuries, and especially of their clinical course. Fortunately for my project I was attached to a large hospital, into which many and various accidents were yearly admitted, and to the surgeons under whose care the patients were placed—yourself amongst the number—I owe a debt of gratitude larger than I can ever expect to pay. Without their constant aid and encouragement, without access to the cases under their care, it would have been impossible for me to have attained my object, or to have had the opportunity of delivering these lectures, much of the material for which has been extracted from an essay by myself, to which the Astley Cooper Prize was awarded last year.

The time at my disposal does not permit me to describe the various anatomical and physiological properties of nerves which bear upon the injuries to which the latter are subject, and I shall therefore at once pass to a consideration of those changes which result from simple section of a nerve trunk, and are seen in both its peripheral and proximal portions. With regard to the peripheral end, there is now tolerable unanimity in one respect at least, as all writers concur in describing a degeneration of both motor and sensory fibres, whilst differing in their description of the process. Waller in 1862 first thoroughly investigated the effects of division, and established the facts—(1) that section of the anterior root, before its junction with the posterior, resulted in a degeneration of that part of the motor fibres which are thereby separated from the cord; (2) that section of the posterior root on the proximal side of its ganglion resulted in a degeneration of that part of the fibres only which intervened between the point of section and the cord, while the periphery of the nerve remained intact. Waller therefore concluded that the ganglion cells of the cord formed a trophic centre for the nerves of the anterior root, while the ganglion on the posterior root fulfilled a similar office for the sensory fibres. These conclusions are generally allowed to be correct, as are also the facts from which the author deduces them, despite the difficulty of explaining the *regeneration* which we shall presently see occurs while the distal end is still separated from its trophic centres. In the above experiments the recurrent nerve fibres present in all nerve trunks may be seen for some time in a normal state in the *peripheral* segment, while in the proximal end of the divided nerve some may be seen in a degenerate condition. The recurrent fibres soon undergo atrophy.

While agreeing in the main as to the changes occurring in the distal end of a divided nerve, the various authors who have investigated this subject differ in the details of the process, and it will therefore be advisable to quote here the most important of these conclusions. Waller and Busch[1] believe that the whole of the primitive fibrils are destroyed, and are regenerated by reunion with the proximal end. Ranvier[2] describes a swelling up of the nuclei of the sheath of Schwann, the protoplasm of which collects into large masses, and encroaches upon the sheath of myeline. The swelling commences within twenty-four hours of division, and by the third day the pressure of the newly formed mass has resulted in a complete section of the axis cylinder opposite the situation of the nucleus in each of Ranvier's nodes. By the sixth day the myeline is reduced to small fragments, the protoplasm contains fatty granules, and the nuclei of the sheath are increased in number. Finally, at the twentieth day the fragments of myeline settle into masses separated from each other by slender filaments with oval nuclei formed by the sheath of Schwann. At the same time granulo-fatty degenerative changes are observed in the connective tissue cells in the endothelium lining the vessels, the fatty granules being probably derived from the myeline which passes in a state of solution through the sheath of Schwann. White blood cells become infiltrated into the substance of the nerve tubes, and appear to be instrumental in removing the débris. Mitchell[3] describes a loss of translucency from the fourth to the sixth day, and says that the white substance of Schwann undergoes an irregular segmentation and finally disappears, the nerve assuming a dull grey tint, like a piece of firm connective tissue. While confessing the difficulty of arriving at a very satisfactory conclusion, he considers that the axis cylinder is probably not affected by the process of degeneration. He does not think that this process spreads gradually from the cut end of the nerve to the periphery, but is satisfied that it affects at one and the same time the whole length of the nerve. Benecke[4] agrees with Mitchell that the degeneration affects the whole periphery simultaneously, and that it becomes of a cloudy yellow tinge and tears easily, the medullary substance coagulates and breaks down to a fine detritus, the axis cylinder becomes enlarged and swollen, and finally disappears, whilst the nuclei of the sheath multiply. MM. Cossy and Dejeune[5] consider that the large nerve fibres do not degenerate so rapidly as the fine primitive fibrils, and that up to the third day the only change is that the axis cylinder is abnormally friable and the nuclei of the sheath swollen. Changes in the medullary sheath, similar to those already described, commence on the fifth day, and are considered by these authors to be secondary to those which occur in the axis cylinder; the latter entirely disappears by the twelfth day. Leegard[6] investigated the condition of the distal ends of the nerves after having produced a simple solution of continuity of the myeline and axis cylinder, and not of the sheath, by the application of a ligature which was immediately removed. He found that in three days the axis cylinder broke up in places, and the myeline ran together in cylindrical masses, and ultimately underwent a granular degeneration, the nuclei enlarged and multiplied, and the axis cylinder finally disappeared from the tenth to the fifteenth day. This process of degeneration attacked the whole peripheral

[1] Zeit. für Wis. Zool., 1854, vol. vi.
[2] Comp. Rend. de l'Académie de Science, 1872; and Cornil and Ranvier's Path., 1882.
[3] Injuries of Nerves.
[4] Virchow's Archiv, 1872.
[5] Archives de Phys., 1876.
[6] Archiv de Klin. Méd., 1880.

segment at once. The foregoing conclusions are all drawn from experiments on animals.

In two cases in which I have had the opportunity of examining the nerves of men (one on the fifteenth day after injury and one on the thirtieth) in which operations for the purpose of secondary suture were undertaken, the condition of the peripheral end was very satisfactorily demonstrated after staining in osmic acid. In the case in which the nerve had been divided fifteen days previously there was found much segmentation of myeline, which had collected in droplets of varying size in the nerve sheaths. In most of the sheaths there was some myeline, but in a few it was completely absent. The nuclei of the sheath had increased in number, although not to any great extent. The condition of the axis cylinders was very difficult to establish with certainty. In most parts of the sections they had completely disappeared, and it was only after a very prolonged search that I could satisfy myself that some of them were yet present, though so much altered in contour as to be almost indistinguishable. In the case in which the section was thirty days old the changes mentioned above were all further advanced. Only a few drops of myeline remained; the axis cylinders had entirely disappeared (or at any rate could no longer be distinguished); whilst the nuclei of the sheath were again but slightly increased in number. In another case I examined the peripheral end of a divided nerve three months after section. Here it was impossible to recognise any nerve tubules at all. There was a complete absence of myeline and of axis cylinders. In the nerves which I have examined at times varying from three to six months after injury similar appearances are found. In most of such specimens the places formerly occupied by nerve bundles are marked by the presence of circular masses of tissue which have the appearance of connective tissue with many nuclei. These masses are, however, much smaller than the healthy nerve bundles, and consequently do not fully occupy the spaces in the perineurium, but appear to have shrunk away from the surrounding tissues. My own observations on human nerves would thus appear to accord with those of other observers on the nerves of animals, and it may be concluded that the degenerative changes are signalised by the destruction of the myeline, the multiplication of the nuclei, and the loss of continuity of the axis cylinder. The majority of observers, and amongst them the most trustworthy, are also agreed that these changes occur in the whole length of the peripheral portion at one and the same time, while others maintain that they commence at the cut end and spread downwards, either a short distance from the point of section or else along the whole periphery. This degeneration commences within a day or two of the injury, and within five or six weeks the nerve has undergone complete atrophy.

Central end.—As has already been mentioned, the fibres of the proximal end are comparatively slightly affected by the nerve section. Ranvier describes the changes as being limited to one, or at most two, of the inter-annular segments, and says that the myeline, instead of becoming broken into large fragments, which subsequently become smaller, as in the peripheral end, is rapidly reduced into fine granules, which later on assume a yellowish-brown colour with osmic acid. The nuclei multiply and increase in size, but instead of encroaching on the medulla they remain flattened against the sheath of Schwann, whilst the axis cylinder remains intact. An infiltration of white blood-cells into the myeline occurs, resembling that already described in the peripheral segment. Neumann also describes somewhat similar changes. Leegard[7] describes changes like those which he noticed in the peripheral end as occurring in the first inter-annular segment of the proximal end; the next three or four segments become also irregular and shorter, with the medulla broken up. The sheath is empty at places, and shows nuclear prolification.

Bulbs.—It is now many years since it was noticed that after section of a nerve the upper end became bulbous, and this has more particularly excited observation in stumps. The very general opinion as to the structure of these tumour-like swellings in the nerves is that they consist of fibrous tissue, a statement which has been handed down from one author to another without apparent investigation. George Hayem in 1877[8] was the first to point out that these bulbs consist not only of newly formed fibrous tissue, but also of new nerve elements. He believes that after section the most distal portion of the upper end degenerates, and is replaced by young fibres which undergo a gradual process of development. In a case which I have recently examined, the amputation (through the leg) had been performed five years previously in a lad aged twelve years. Reamputation became necessary on account of an insufficient covering for the bones, and an examination of the bulb on the anterior tibial nerve showed on cross section a greater number of fibres than did the healthy nerve above. The only conclusion that can be arrived at is that the additional fibres were of new formation; they were mixed with newly formed fibrous tissue. A microscopic examination of such a bulb under a low power shows a proliferation of the perineurium, which penetrates between the different fibres in the bundles, and separates them into smaller bundles of three, four, or more fibres. Later on, these fibres becoming compressed, gradually lose their sheath of myeline, and so appear smaller than normal, until finally they come to be composed only of axis cylinders. The lower down in the bulb the section is made, the more complete do these changes appear; so that between this part and the junction of the bulb with the healthy nerve above all stages of transition between connective tissue and healthy fibres may be seen. Considering that the young nerve fibres also appear on section to be smaller than normal, it becomes very difficult to say for certain whether any individual nerve tube is in a stage of transition into a higher or lower state. Nevertheless, as a transverse section shows, on careful examination, that although some of the thickness of the bulb is due to an increase of the connective tissue elements, yet the larger amount of it is composed of nerve fibres, we are naturally driven to the conclusion that some of these must be of new formation. Sections of the nerve trunk above the bulb do not usually show any of the degenerative changes that are met with in the peripheral end, there being no increase of connective tissue or decrease in the white substance of Schwann unless inflammatory changes have been started and "chronic neuritis" has supervened. In those cases, however, where the section is of very long standing, it appears that after the lapse of a considerable time, probably years, the nerve fibres do in part atrophy and degenerate, and thus follow the example of other tissues and bear evidence to the general truth of the pathological law that "atrophy results from non-use." I have not myself had opportunities of examining the proximal ends of divided nerves at any distance from the seat of injury after simple section, but I have examined the nerves from limbs in which amputations have been performed in bygone years, and have found in them that many of the nerve fibres are diminished in size, that their myeline sheath is greatly shrunken, and that some of them have quite disappeared. This is a pathological fact of the greatest clinical interest, and one to which I shall again have occasion to refer.

Regeneration and union.—The process of degeneration, which has just been described, is succeeded by one of regeneration, resulting, in favourable cases, in a complete restoration of the nerve. It is of great importance to observe that this regeneration *can* take place in the peripheral end previous to any reunion with the proximal extremity, and an examination of the former several months after section will show that some of the axis cylinders have been re-formed, and that around them a deposit of myeline is slowly developing. The fibres are not, of course, collected into symmetrical bundles, as in a healthy trunk, and are smaller than natural; they may be seen scattered about amongst the surrounding connective tissue in all stages of development, some of the axis cylinders yet naked, others with varying amounts of myeline around them. It seems strange that such regeneration should take place without reunion with the nutritive centre, but the importance of the fact for a proper appreciation of the symptoms and results of nerve sections, as well as for the light it throws on the question of treatment, makes it one of much interest. As to the exact process by which these new nerve fibres are formed and the divided ends reunited, time does not permit me to do more than refer very briefly to the opinions and work of others. As a result of experiments on various animals, it has been shown by numerous writers that the nuclei of the sheath are the chief agents in the repair, and that they form new axis cylinders and unite the divided ends. The description by Ranvier of an extension of the axis cylinders of the upper end into the empty sheaths of the peripheral portion is not generally credited. I have

[7] Op. cit. [8] Rev. des Sci. Méd.

already alluded to my own examinations of human nerves in a state of degeneration, and shall now describe the appearances I have met with in cases in which regeneration of the peripheral end had occurred after section, independently of union with the upper portion.

The first case was that of a lad, aged eighteen, in whom an operation for reunion of a divided ulnar nerve was undertaken seven months after injury. An examination of the portion of the peripheral end, which was removed preparatory to suture, showed that, scattered throughout a transverse section, were several small, imperfectly developed nerve fibres such as are met with (and have already been described) in the bulbous proximal end. These new fibres were not collected into definite bundles; they were much smaller than natural, and their myeline sheath was scarcely perceptible. The total number of these new fibres was but small, and I was unable to trace their development in a satisfactory manner.

The second case was that of a woman, aged fifty-three, who had divided the median nerve just above the wrist-joint. An operation for suture was undertaken nine months later, and the condition of the resected portion of the peripheral end was found to be as follows. The circular spaces in the neurilemma, which, in a state of degeneration, I had previously found in other cases and have already described as partly filled with nucleated connective tissue, I now found to be occupied by nerve fibres, in varying stages of regeneration. The steps in the formation of these fibres could, moreover, be most clearly traced. Their first appearance was in the form of oval and spindle-shaped nuclei, which seemed to be identical in structure with the nuclei of the sheath. These nuclei were arranged in bundles, with their long axes parallel to that of the nerve trunk. The next step was the elongation of the nuclei and their gradual transformation into fibres, around which subsequently a myeline sheath was formed. In some parts of the section, bundles of newly formed nerve fibrils could be seen occupying the spaces in the neurilemma which had evidently been previously occupied by the healthy nerve bundles, before the time when the injury was inflicted. The new fibres in some bundles were in a much more advanced stage of development than those in others, the regeneration appearing to progress simultaneously throughout all the tubules in each bundle irrespective of the condition of the fibres in others.

I have also had the opportunity of examining the nerve ends in a case in which the ulnar had been divided nearly two years before I saw the patient. The nerve had been completely cut across, and no union had taken place, the upper and lower ends being separated by about half an inch or more of firm cicatricial tissue. A microscopical examination of the peripheral end showed that many of the fibres had been regenerated. A large number of the bundles contained numerous nerve fibres in various stages of development. In some the axis cylinder alone was formed. In many others the myeline sheath surrounded the young axis cylinders, whilst in some the "nodes of Ranvier" were well marked.

There is, indeed, a tolerable consensus of opinion as to the part played by the nuclei of the sheath, from which, according to most authors, the new axis cylinders are formed. The strongest objection to Ranvier's theory, that the undegenerate fibres of the central end grow into the empty sheath of the periphery, lies in the fact that, as I have already described, the peripheral end will regenerate even when ununited to the central healthy fibres; and if further proof of this be necessary, it may be found in the investigations of Phillippeaux and Vulpian,[9] who not only saw regeneration of the peripheral fibres without union with the proximal end, but found the same take place in a piece of nerve resected and transplanted into the surrounding tissues. If, then, the peripheral end has become regenerated, and is placed in sufficiently close proximity to the central portion, union will result by the continued formation of nerve fibres between the divided extremities. But, on the other hand, should union fail, it appears probable that the nerve again degenerates, perhaps never to recover. I have found no mention of this by other authors, but am, nevertheless, inclined to feel certain that such changes must occur, for otherwise we should have some difficulty in explaining those cases in which many years after injury the nerves have been found completely atrophied. As examples of such I append the following two cases. Israel[10] records the case of a man who had been shot through the median and ulnar nerves thirty-two years previously. The peripheral ends were found to have only the thickness of a knitting-needle, and to consist chiefly of connective tissue. In vol. xxiv. of the Pathological Society's Transactions, Mr. Butlin describes a case in which the ulnar nerve had been divided fourteen years before death. No union had taken place, and the lower end was found to consist nearly entirely of connective tissue, a microscopic section showing that the healthy nerve fibres had entirely disappeared, while the presence of any axis cylinders was very doubtful. No doubt many such cases can be found, and all bear but one of two explanations. Either the divided nerve never became regenerated at all, or else it subsequently again degenerated. The latter appears to me the most likely, but before the matter can be considered settled more investigation is necessary.

The conclusions which may be drawn from the most recent investigations are: 1. That the nuclei of the sheath of Schwann (which are developed from epiblast) form the new axis cylinder. 2. That the myeline is subsequently formed around the new cylinder. 3. That the peripheral end may become in part regenerated without forming any union with the proximal extremity, but that it probably again tends to degenerate if union fails.

(To be concluded.)

[9] Gaz. des Hôp., 1861.

[10] Virchow's Archiv, vol. lxxxv.

ABSTRACT OF

Lumleian Lectures

ON THE PATHOLOGY OF INTRA-UTERINE DEATH.

Delivered at the Royal College of Physicians of London, March, 1887,

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LECTURE III.

DR. PRIESTLEY in this lecture discussed the diseases and anomalies of the placenta, one of the chief difficulties in the study of which arose, he observed, from the tendency on the part of authors to regard the particular morbid change which they have had the opportunity of investigating as the chief or only disease with which the organ is affected. All other morbid appearances are for them but consequences or complications of a specific and cardinal lesion upon which the rest depend. Thus Charpentier accepts the investigations of Robin as illustrating the whole range of placental pathology, and believes that when disease has invaded the placenta it commences always in fibro-fatty change; and consequent on this, blood extravasations and successive transformations of effused blood account for all the various pathological appearances associated with the death or enfeebling of the fœtus. Verdier and Bustamente, on the other hand, take entirely another view of these changes. To the lecturer it appeared that one cannot long investigate the diseases of the placenta without discovering that they are most complex in their nature, and that they proceed from a variety of causes inextricably intermixed—sometimes one pathological condition having the precedence, sometimes another. The placenta is, in truth, as liable to be affected by a variety of diseases as the liver or the lung, and some of its diseases bear not only a striking resemblance to diseases occurring in those organs, but have affinities with them and may depend on the same causes. Confusion has also arisen from investigators describing the same morbid condition under a different name, probably because it was observed only in one stage of progress or with some variations; and some have fallen into the error of ranging affections which are intrinsically different under the same appellations. Extravasations of blood into the young placenta are very common, and they occur as the result of rupture of some of the vascular maternal loops which ramify throughout the placental mass and surround the villi of the chorion. These vascular maternal loops eventually become the sinuses or

cavities which permeate the placental tissue at a later period. If the extravasations be limited in extent, the life of the embryo may not be compromised, but a more extended apoplexy at once stops its nutrition, and the root-like processes of the young villi become so compressed that the circulation can no longer be carried on through the minute fœtal bloodvessels which they contain. Apoplexy takes place into the substance and on the uterine surface of the full-grown placenta also very frequently. There is, however, this marked difference from the earlier period—that now the placenta is larger and thicker, and isolated clots may be deeply embedded in its substance, only to be exposed by incision. Others may have been formed between the uterine walls and the maternal surface of the placenta, making a deep depression into the centre of a placental cotyledon and compressing the placental structures. As a further difference in the results of blood extravasations in the young and more mature placenta, Dr. Priestley pointed out that in the latter several successive effusions of blood may take place, forming apoplexies of varying sizes and dates, without so seriously jeopardising the life of the fœtus as it would do at an earlier period of gestation. The larger size of the placenta and its more extended surface afford a better chance of so much of the potential part of it retaining its healthy relations, and so carrying on the placento-fœtal circulation that embryonic life is sustained. Among the writers on this disease are Sir James Simpson, M. Jacquemier, Verdier, Bustamente, and Robin. The last named differs *in toto* from other workers in the same field as to the order of pathological events in the placenta. He insists that no blood extravasations take place in the placenta without previous disease in the tissue, and that the morbid change which is the most common forerunner of apoplexy is not mere vascular change, but an alteration of the whole structure of the villus. The interference with the life of the child or with the course of gestation depends upon the amount of extravasation, and the excitability or quiescence of the uterine walls under the provocation to contraction.

Inflammation of the placenta, or placentitis, has been discussed by several authors, amongst whom Simpson described it as consisting of three stages: the first being one of congestion, in which the tissue is engorged by an unusual accumulation of blood in the vessels; the second characterised by the exudation of coagulable lymph, producing a greater density of tissue and eventual induration; the third stage being that in which purulent matter is formed. In later days a good deal of scepticism has been expressed about the existence of placentitis—at least, so far as its parenchyma or fœtal portion is concerned. Bustamente disbelieves in its existence altogether, and says the evidence rests on the supposed presence of pus, which has been shown to be fallacious; the supposed purulent matter, according to Robin and other observers, being merely pseudo-pus, produced by broken-down fibrin. It has been further argued that, according to modern theories, inflammation of the placenta is impossible, since there are no capillaries in the maternal portion, and there are no nerves to regulate the contractility of vascular walls in the entire structure. This reasoning does not, however, seem conclusive to Dr. Priestley. There are fœtal capillary loops in all the active villi, and there are also minute capillaries of maternal origin in processes or dissepiments of the decidua which circumscribe the fœtal villi. It is true, nevertheless, that the presence of purulent matter in the placenta in most of the reported cases is supported by imperfect evidence. There are only some ten cases of abscess in the placenta recorded, and as no account is given of the microscopic examination of the supposed pus, the evidence is plainly unsatisfactory. Purulent matter has, however, been found and duly authenticated on the surface of the placenta and in the uterine sinuses at or near the placental site. That some morbid change analogous to inflammation does take place in the placenta or its neighbourhood is apparently indicated by the firm adhesions which are occasionally formed between the placenta and the uterine walls, and from the traces of an exudation which agglutinates and compresses the villi of the placenta.

Dr. Priestley then spoke of a remarkable affection which he designated as placental phthisis, a disease which repeated investigations have convinced him is not, primarily at least, a mere increase of the cell structure or of the fibroid element in the placenta, but in its first stage consists of an exudation or deposit thrown out among the villi, and is probably due to some modification of a low inflammatory process. The disease is not really tubercular in its character; nor have bacilli been found in its substance; neither is it primarily or essentially a fatty degeneration, for the deposit is not affected by the reagents which show the presence of fat. Its corpuscles, unlike fat-granules, are thoroughly coloured by the material used for staining the microscopic sections. It is not due to changed blood clot, for there are neither altered blood-corpuscles nor crystals in its substance. Its general appearance, both before and after section in the earlier phases, is rather that which has been described as fibrinous or other analogous deposit, and it has the chemical characters of protein compounds. Dr. Priestley announced his intention of going into the minute pathological anatomy of this so-called placental phthisis in a paper which he purposes offering to the Obstetrical Society. In the order of successive changes the disease runs in somewhat parallel lines with phthisis in the lungs. First comes solidification, then softening, with breaking up of tissue and resulting hæmorrhage. A notable feature in many of the microscopic sections was the great hypertrophy of the contractile coat of the fœtal bloodvessels. It is not an uncommon form of disease, and there is some reason to believe that although commonly it runs a chronic course, yet occasionally its progress is very rapid. With regard to fatty degeneration of the placenta, the lecturer remarked that the question is whether this disease during the life of the child really occurs as a primary pathological change, or is invariably preceded by some exudation or other morbid change which initiates the fatty metamorphosis. Fatty degeneration, whether it occurs as a primary change or is the secondary effect of some other pathological condition which precedes it, may produce softening and disorganisation of the placental tissue, and so favour extravasation of blood or apoplexy. In other placentæ it leads to atrophy. Virchow has described a very curious morbid transformation of the villi of the placenta, which he terms "myxoma fibrosum." It consists of such enlargement of the stems and villi by fibroid hypertrophy that they form in some cases distinct tumours in the placental structure. Cases of this disease are somewhat rare; but Dr. Priestley has seen two excellent examples in Copenhagen, which have been described in Virchow's *Archiv*, in 1878, by Storch. Virchow regards the disease as a transformation of the mucous element pertaining to the villus structure into fibroid tissue, instead of the soft myxoma which is seen in cystic chorion. The fibroid change is, however, unlike the cystic chorion, more frequently connected with the later period of pregnancy, although indications of it are sometimes seen in the earlier months.

Passing over œdema of the placenta, melanosis, calcareous or osseous concretions, cysts and tumours, Dr. Priestley then came to the subject of syphilitic placenta, concerning which much diversity of opinion exists. So far as his observation goes, he does not think we are yet able to say with precision that any one specific lesion of the placenta belongs alone to syphilis, although some morbid appearances are more constant than others in connexion with syphilis—as, for example, the changes described by Fränkel. In addition to the hypertrophy of the villi described by Fränkel, and morbid changes in the decidua, he had seen fibroid deposits, such as those described by Rokitansky—some unchanged, others undergoing fatty transformation. Again, he had seen the yellowish granulations of varying sizes looking like tubercles, as observed by Lebert; but he had also seen most, if not all, of these pathological appearances where no syphilitic history could be traced. The nearest approach to precision in this respect is to say, as a general rule, when the decidual or maternal portion of the placenta has become so far changed by hyperplasia as to arrest the utero-placental circulation and the full development of the placental villi, that this is probably due to maternal syphilis. It finds its analogy in the changes which take place in the mucous membrane in the uterus and elsewhere when the blood is undoubtedly poisoned by syphilis, and also in the thickening of the decidua during the early pregnancy of syphilitic women, which has been described by Virchow and Dohrn as "endometritis papulosa et tuberosa." When fibrinous and pseudo-tubercular deposits are found in the placenta in connexion with syphilis, they are probably only the expression of a depraved or impoverished condition of the blood, which may be equally associated with anæmia or with some form of dyscrasia. When there is marked hypertrophy and degeneration of the villi, the maternal portion of the placenta being less affected, the syphilitic taint more probably comes from the male parent, and the mother may show no signs of

the disease. Both Depaul and Tarnier, among modern observers, dispute the existence of absolutely specific lesions in the placenta as the result of syphilis. De Sinéty, one of the latest writers quoted by Charpentier, did not find placental lesions in all women affected with syphilis, but where lesions were present he was able to demonstrate three important points: (1) hypertrophy of the placental villi; (2) fibrous degeneration of them; (3) islands of granulation belonging to the caseous forms of degeneration. This coincidence of the fibrous and caseous forms of degeneration is found in syphilitic gumma, notably in gummata of the liver. De Sinéty had not found this combined degeneration except in syphilis. He does not know if any other disease may produce the combined changes, and does not decide the question as to a specific placental lesion in connexion with syphilis. In reference to all diseases which affect the placenta, it is to be noted that the effect on the life of the child bears a direct relation to the amount of damage done to its tissues, and impairing its double function as an organ for respiration and absorption. In cases of separation of the placenta, a portion still adherent to the uterine walls may be enough to sustain the life of the child, for a time at least; and, in like manner, when the placenta has become diseased, if some portions of it only remain sound, vitality may still be maintained in the body of the fœtus. If the morbid process be slow and chronic, there will probably be progressive emaciation; and if the child be born alive, it will have all the appearances of being starved during its development. If the placental disease is more acute and rapid, and affecting a large area of tissue, the child's movements become at first more restless than usual, and then become less marked and distinct as they subside into absolute quiescence. With the aid of the stethoscope the beats of the fœtal heart have repeatedly been noted in cases of suspected placental disease to become slower and slower, and thus to furnish important indications for the induction of premature labour. Among the further causes of fœtal death in utero which Dr. Priestley said he could not in these lectures overtake are the pathological conditions of the umbilical cord, antepartum hæmorrhage, extra-uterine gestation, and allied conditions, the malformations and diseases of the unborn child—the most fertile cause of the latter probably being syphilis. Time, also, did not permit him to speak of the changes taking place in the body of the fœtus when it is long retained in the uterus after its death; of the inferences to be drawn as to the cause of death from the appearances it presents after longer or shorter periods of retention; and other kindred topics.

With regard to the subject of preventive treatment, Dr. Priestley stated that, so far as obviating some of the forms of intra-uterine death is concerned, we are absolutely in the dark, and the therapeutics of the subject are still a closed book. Still, a careful study of the several pathological conditions in the parents, combined with the local expression of the results of these conditions, allows in some cases of methods of treatment being formulated and of rules for guidance being laid down which in practice have been attended with happy results. Whenever, therefore, a woman has once or more frequently lost the product of conception at an early or later period, careful inquiry should be made into the health of both parents, and any previous history of illness should be accurately scrutinised. No pains must be spared to ascertain whether syphilis is at the root of the misadventures. When either parent has, in the near or distant past, contracted this disease, both should at once be put under anti-syphilitic treatment before a fresh conception is permitted, and this ought to be sufficiently prolonged to give it a fair chance of producing satisfactory results. Dr. Priestley said that he had repeatedly seen good effects from small doses of bichloride of mercury, with bark, given during the first three months of gestation, when there has been no opportunity of commencing the treatment before conception began. Similar favourable results have been observed to follow the administration of iodide of potassium. If inquiry shows that the health of either parent is disordered or deranged from some other cause than syphilis, care must be taken to trace out the nature of the deviation from health, and so to define it that treatment fulfils its purpose. Not the mother only, but the father also, must be put under supervision. Any constitutional peculiarity or diathesis must be met by appropriate means—the strumous, by tonics and cod-liver oil, with such improved climatic conditions as may be feasible; the gouty rheumatic by limitations of diet, careful regimen, and alkaline medicines. Keeping the bowels of women who are liable to abortion unloaded by aperients is important. Such laxatives as are not likely to stimulate undue action of the bowels or straining must be chosen, else the medicines may stir up the very mischief they are given to prevent. Compounds of sulphur, the confection of senna, and saline aperients seem best to fulfil the needful indications. The advantages of general bloodletting are doubtful, and its employment may lead to harm instead of good; but local depletion by leeches is less objectionable. For anæmia, preparations of iron must be administered in some form least likely to disturb the digestive organs of the patient, and these should be given not only antecedent to the occurrence of conception, but continued with such modifications and in such combinations as may be suitable during the progress of pregnancy. Where local conditions have been ascertained or suspected to be the cause of repeated abortion or of later fœtal death, the treatment must be directed in accordance with the special requirements of the case. Especial care should be taken to remove as far as possible all indications of endometritis prior to the commencement of pregnancy, an unhealthy condition of the lining membrane of the uterus being regarded by most authorities as a potent cause of disease in the fœtal membranes and placenta. Rest in the recumbent position is important, especially at the times which correspond to the days of the catamenial period, and all forms of locomotion likely to jar the body must be sedulously avoided. Chlorate of potash, Dr. Priestley thinks, may act usefully as an alkaline salt in preventing the formation of coagula and fibrinous deposits in the placenta. In instances where the progress of zymotic disease or of inflammation in some organ of the patient's body is attended with high temperature, he suggested that an attempt should be made to lower the temperature of the uterus and of the fœtus either by the application of ice-bags to the maternal abdomen, or of those tubular appliances for the application of cold which may be modified to fit any part of the body. Some of the baths and waters on the Continent have a high reputation for their tonic properties and their favourable influence on pregnancy. Aix-les-Bains is said to be useful in these cases. Courses at Schwalbach and Kissingen have been followed by happy results. The former place is more appropriate for patients who are more or less anæmic, Kissingen for those in whom the digestion and portal system are at fault.

ON THE USE OF THE

THERMOPILE AND SECONDARY BATTERIES AS A CONVENIENT MEANS OF PRODUCING ELECTRICITY FOR MEDICAL AND SURGICAL BATTERIES.

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ELECTRICITY has never played so important a part in the routine of daily practice and consulting-room work as its undoubted usefulness would seem to indicate that it should. In comparing it, for instance, with the stethoscope and thermometer, we find that, while these are in the hands of every physician and surgeon, electricity is hardly met with at work, save in the chambers of a few specialists and in a few well-equipped hospitals. Many common mechanical instruments for studying and treating disease—such as the measuring line, the weighing machine, the concave reflecting mirror, and the speculum—are regularly employed by the majority of practitioners; while electricity, despite its value in the diagnosis and treatment of nervous disease, as an unsurpassed illuminating agent, as an electrolytic destroyer of diseased tissues, tumours, and nævi, as the most manageable cauterising agent, and as supplying the electromagnet for extracting fragments of iron from the eyeball, is superseded for these purposes by less efficient means. The expense of electrical apparatus, and the want of knowledge concerning it, are not the chief reasons for this neglect. The explanation is to be found in the extreme inconvenience attendant upon the methods of generating electricity at present employed. Not to mention, then, the initial cost of procuring a good combined battery, capable of furnishing both continuous and

induced currents, and without dwelling on the fact that when procured it is unsuitable for the electric cautery, everyone who employs it must be painfully impressed with the constant trouble and time expended in keeping it in order. The zinc plates have to be amalgamated, the acids to be prepared and introduced beforehand, and the corroded connexions gone minutely over and rectified before the battery is used. During its employment difficulties may arise from polarisation and other causes, although in the bichromate batteries the polarisation difficulty has been pretty well overcome. After the battery has been used, and in all likelihood for a few minutes only, the emptying and cleaning of the cells have to be gone through, and perhaps a couple of hours spent in this before it is laid aside. Even then the remains of acid and the resulting galvanic action corrode the brass work and connexions, and it is uncertain whether it may not require before next it is used a prolonged visit to the electrical mechanician's workshop. It is, I think, a fair estimate to say that, when used by the ordinary practitioner of medicine and surgery, each employment of the battery involves three or four hours of work, by far too great an expenditure of that valuable time which to him more than most means money. Nor do the objections named exhaust the inconveniences that are urged against the batteries. Bottles of acids are difficult to keep, stoppers become fixed, and the bottles are broken in their hurried removal, the waste acids are inconvenient to be got rid of, and, above all, no acid battery in ordinary use is in the least suited for the requirements of transport. We are to-day much where we were twenty years ago as regards these inconveniences. The Leclanché batteries are too bulky, and, being weak, too many cells are required, so that, like most others, they are quite unsuited for transport. The Gaiffe batteries are not easily recharged, and in practice have been found unsuitable. The only really convenient appliance for transport—the magneto-electric induction machine—is useful only as an exciter of faradaic muscular contractions.

I wish to direct the attention of the profession to a method by which electricity in all its forms can be readily and easily obtained at all times, by arrangements that are easily and conveniently managed, that are little liable to get out of order, that can be procured at a moderate initial expense, and cost little or nothing afterwards, that are convenient for transport, and are in all respects attended with the minimum of inconvenience. I do not claim that the arrangement I advocate the adoption of is all we could wish it to be, but believe it is a very great step indeed in advance of the plans hitherto proposed, and is likely to satisfy a large number whose employment of electricity in practice is at present hampered or prevented by the drawbacks that have been mentioned. The plan is not my own. It was suggested to me last year by Mr. J. W. Swan, the well-known inventor of the incandescent lamp that bears his name. He pointed out to me that the employment of the thermopile as a generator of electricity would probably be of considerable service to members of our profession, and he was good enough to interest himself in the matter and work out for me, in a manner I could not myself have accomplished, the practical steps towards effecting this. I explained to him our wants, and he devised the means of meeting them. The thermopile, which forms the starting-point of the arrangement, is composed of four groups of German-silver and zinc-antimony elements, each group containing twenty pairs in the form of a wheel, six inches and a half in diameter, in which the elements are the spokes. The four coronal groups are placed on a wooden stand, about sixteen inches square, and are connected together in series—i.e., the positive pole of one group is attached to the negative of the next. Each group has in its centre a gas Bunsen burner, the burners all supplied by a common pipe, but with taps so placed that they may be used separately if required; and when the burners are lit, the difference of temperature between the outer and inner ends of the pairs of elements generates a current of electricity, feeble indeed, but very convenient, since its feebleness can be compensated for, and its convenience, requiring as it does only the turning on and lighting of the gas, is unquestionable. These thermopiles are made by Rebicek of Prague. They give an electro-motive force of about one-tenth of a volt per pair of elements—that is, four volts for the four groups, equal, say, to seven or eight Daniell's and three or four Grove's cells, power sufficient to illuminate a small incandescent lamp. A slight alteration in the thermopile would adapt it for being used with spirits of wine, or even with paraffin. Several of these thermopiles can be arranged in series, with a gain in electro-motive force corresponding to the increase in the number of elements added, but at the cost of an increase in initial expense, and, from their bulk, a lessening of convenience. Were they to come into general use, their bulk could be considerably reduced by some slight alterations.

The thermopile alone, however, is insufficient for the purposes of the practitioner. To render it useful it requires to be supplemented by the secondary battery, or accumulator, as it is sometimes called. With this addition in a suitable form, portability being the chief point, the apparatus is complete. The secondary batteries which Mr. Swan designed for me for this purpose, consist of two portable vulcanite boxes, each three inches square and eight inches high. Each box contains two cells arranged on the principle of Planté, with elements of lead and peroxide of lead, in dilute sulphuric acid of 1 to 10 in strength. Each is closed by an indiarubber washer and a lid clamped on by a screw, to prevent their spilling when carried, a ring-handle being attached for this purpose. They can, like ordinary galvanic cells, be used separately or in conjunction. Each weighs, when filled and charged, 6 lb. 1 oz. Mr. Swan writes concerning them:—"The object in dividing the batteries is that there may be no unnecessary weight to carry where the power of one battery (two cells) is sufficient, and it will be sufficient for surgical lamps for eye and throat examination. For electrical cautery the combination of the two batteries is needed. The thermopile has just power enough to charge one battery at a time when the gas is not very fully turned on—that is, when the flame just burns above the talc disc. Under these conditions the thermopile will send $\frac{1}{2}$ or 0·6 of an ampère through one of the batteries, and that is what is proper for a battery of this size. While charging, the cover should be removed, and several folds of blotting-paper laid on the mouth of the battery to intercept the bubbles of gas that rise from the liquid. It is necessary to make up for this loss of liquid by adding to that in the cells sufficient to cover the plates. The battery should not be allowed to become completely discharged, and, after using, it should, as soon as possible, be fully recharged and left so. The only part of the battery likely to get out of order is the connexion between the positive plate and the outside terminal, but it is very easy to repair, and I think probably little or nothing beyond that will require to be done to the batteries for a long time. Several folds of blotting-paper round the joint of the lid and case, or a waterproof bag to contain the whole, will prevent driblets of acid staining the clothes of the person carrying it."

In using these cells I have not found any drawback to them, save the slight one mentioned by Mr. Swan—viz., an occasional tear of acid pressed out when they are used, closed, or carried, by the pressure of the accumulating gas within. On the contrary, they are among the least obnoxious occupants of my work-room. They stand on a table in a porcelain photographer's tray or common plate beside the thermopile, for the convenience of charging. The tops are removed, because, if they are kept screwed on, the imprisoned gas that is disengaged forces out a few drops of liquid past the washer, and this trickles down; while if they are removed no spilling occurs, and they remain dry and clean. When about to be transported, the lids are screwed on, blotting-paper is put round their upper ends to catch any tear of acid, and, thus arranged, they can be carried about a whole day with perfect convenience. If the liquid in the cells diminishes, a few drops of dilute acid are added by a pipette. After they have been used for any length of time, the thermopile is lit, its conductors are connected with one of the batteries at a time, and in a few hours it is completely recharged, as may be seen by the free escape of gas from the plates. The cells are connected at will with two pairs of insulated cord conductors that pass along the wall and through the partition into the consulting-room. The two pairs of conductors enable the batteries to be used simultaneously for different purposes, one being attached to each pair, or to be both connected with one pair as desired.

I have during the past two months subjected the arrangement to the severest tests of practice, having used it for nearly every purpose save that of extracting steel by the electro-magnet, and have every cause to be satisfied. The batteries yield a sufficient constant current, can be attached to the induction coil for faradisation, answer well for electrolysis, and are very convenient for illuminating the mouth and examining for translucency in cystic tumours. They

are very efficient for the galvano-cautery, easily heating, when fully charged, three or four inches of stout platinum wire white hot, and fusing thinner pieces. When employed for electric illumination in the work-room, the conductors from one battery are connected with a two-candle power Swan lamp placed in the hollow end of a piece of bamboo, which shades the eyes of the observer from the light, and, acting as a handle, enables it to be directed towards the part to be illuminated or introduced into the mouth. When both batteries are attached I can light up my consulting-room by means of a five-candle lamp that is suspended by a bracket from the wall. In testing the translucency of cystic tumours, the two-candle lamp in its bamboo handle is pressed against one side of the cyst, and, the swelling being shaded by the hand, the other side of the tumour is observed. In cases of hydrocele of the tunica vaginalis, and in one case of congenital cystic hygroma of the neck, the translucency was well brought out, and it is much more convenient than the candle or wax taper, especially in children, whose incautious movements cause danger of scorching them. In the use of the endoscope the greatest inconvenience is felt from the heat of the lamps used in connexion with them, and from the necessity of keeping them upright. This inconvenience is a very great drawback indeed to its employment in examination of the œsophagus, the rectum, and especially the urethra, where it is occasionally of the greatest service. The introduction of a two-candle power Swan lamp into the instrument creates quite a revolution in this respect, and converts the endoscope from a very cumbrous into a most manageable aid to diagnosis. When required for faradisation the conductors are simply attached to the coil standing in the consulting-room. Both batteries have to be attached to the conductors for electrolysis, electric cautery, or the use of the constant current. In galvano-puncture I have not yet had an opportunity of using them, but in electrolysis they answer well, one needle being attached to each conductor. For electro-cautery or the galvanic écraseur the instrument is attached to the conductors and the circuit completed at the moment desired by the button being closed. I was pleased with its action in cauterising the pharynx, and in burning a small canal that had to be closed after an extensive operation for cleft of hard and soft palates. In using the constant current a sponge electrode is affixed to each terminal of the pair of conductors. The method of attachment most convenient is that of a pin slipping into a tube or socket, which is quickly connected or undone, or, when needles are used, joining them to the conductors by a thin bit of silvered copper wire.

During the two months in which I have employed the above arrangement, it has been in almost daily use, and its efficiency has been tested in every way; yet the secondary batteries have only thrice required to be charged by lighting the thermopile for a few hours. The convenience of the whole, and its superiority to any of the methods hitherto suggested, are so very striking, that I unhesitatingly recommend it to the notice of my professional brethren in the very strongest terms.

Note.—The price of the thermopile is about £8; each of the secondary batteries costs 55*s*. They can be had through the firm of Mawson and Swan, Mosley-street, Newcastle.

CASE OF INTESTINAL OBSTRUCTION FROM IMPACTION OF A GALL-STONE IN THE ILEUM.

ABDOMINAL SECTION AND REMOVAL OF THE STONE; DEATH ON THE SECOND DAY.[1]

BY BRYAN HOLME ALLEN, M.D. LOND.

I WAS called to Mr. C. E., aged fifty-seven, on Sept. 20th, 1886, on account of constant sickness followed by faintness. On inquiry I obtained the following history. He had enjoyed fairly good health, but had had an attack of typhoid fever twenty-eight years ago. He was always disposed to be constipated, but by the free use of aperient medicine had kept his bowels acting. He had been a somewhat free liver, and for the last few years had suffered from business anxieties. On July 14th of this year (1886) he was seized with severe vomiting and acute pain in the epigastrium and right hypochondrium, followed by jaundice; the pain was intense for three or four days; the urine high coloured. I could obtain no definite information about the motions; he was supposed to have passed a gall-stone, though nothing was ever seen in the motions. In a month's time he returned to business, feeling fairly well, but not losing the sense of uneasiness in the right hypochondrium. His bowels were more obstinate than ever, acting for the last time on Sept. 13th. On the same day he was seized with frequent vomiting of green bilious matter. On the 17th he consulted a physician in London, who carefully examined him, and, finding nothing in the abdomen, attributed the vomiting to gastric catarrh, and advised him to come to Hastings, which he did on the 20th. On that day I found him complaining of great faintness, and of some pain in the stomach, mostly at the epigastrium, but to a less degree in the region of the cæcum and descending colon, with moderate tenderness in these latter regions. He was vomiting frequently, the vomited matter being very green, of an acid, disagreeable, but not at all feculent smell. His bowels had not acted for a week, nor had he passed flatus per anum. No tumour or special resistance could be anywhere felt in the abdomen. There was no abdominal distension, and no visible movement of the coils of intestine. The pulse was large, soft, and quick. He was sent to bed, moderate doses of opium administered, and an injection ordered, which failed of effect, probably from imperfect administration. On Sept. 21st, 22nd, and 23rd he had an injection each day of three or four pints of soap-and-water, which on each occasion brought away some green offensive, solid, but not hard, lumps, after which the abdominal tenderness disappeared and the pain and sickness greatly diminished, the character of the vomited matter remaining unchanged. He was taking ten minims each of the solution of morphia and tincture of belladonna every four hours, or oftener if required. His diet consisted of half a pint of milk and a little beef-tea in twenty-four hours; a beef-tea enema was given every four hours. On the 24th he was ordered a five-grain cathartic pill (U. S. Pharm.) at bedtime, followed in the morning by an injection through a long flexible tube. On the 25th two pills of the same were given, also followed by an injection, which brought away motions of the same character as before. The vomiting varied from once to three times in the twenty-four hours, but was becoming more distinctly unpleasant. Very little pain; no tenderness or distension; no wind passed per anum. On the 26th and 27th the injections were repeated, but no action followed, and on the evening of the latter day the vomiting was distinctly feculent. There was no distension of the abdomen. On the 28th Dr. Arthur Gamgee saw him with me, and suggested the employment of electricity. Chloroform was given, and a current from a large primary coil was used, being passed from one side of the abdomen to the other, and afterwards through the rectum, but although violent action of the abdominal muscles was produced, no other effect resulted. Nothing definite could be felt in the abdomen under chloroform, but Dr. Gamgee thought that he felt greater resistance in the region of the ascending colon.

The intestinal obstruction had now been complete for sixteen days. Some fæcal matter had been brought away by the injections, but this evidently came from below the obstruction. No flatus had been passed since Sept. 13th, when the symptoms of obstruction set in. After careful consideration of the symptoms, I now came to the conclusion that the case was one of impacted gall-stone in the ileum, and that there was little or no hope of relief except by operation. I was led to this diagnosis by the following points. The invasion was sufficiently sudden to bring it within the class of acute obstructions, and there was a total absence of distension of the abdomen. I therefore excluded all diseases of the great intestine, including volvulus. At the same time, the onset was not sufficiently sudden for an internal strangulation or twist of the small intestine. Moreover, there was a total absence of collapse, the vomiting had never been severe, it was not stercoraceous until the fourteenth day, and the pain was far from acute. The absence of blood or mucus in the evacuations brought away by the enemata, the completeness of the obstruction, and the fact that no tumour could be felt, even under chloroform, seemed to negative the idea of acute intussusception. It was quite certain that there was no peritonitis, either chronic or acute. All these conditions being excluded, obstruction from a foreign body impacted in the small

[1] Read before the East Sussex Medico-Chirurgical Society.

intestine, either at its narrowest part near the lower end of the ileum, or in some part narrowed by disease, seemed the only probable diagnosis. That the foreign body was a gall-stone I concluded from the history of hepatic colic ten weeks before, accompanied by little, if any, jaundice, and followed by uneasiness in the region below the liver, continuing up to the time of the attack.

On Sept. 29th, at one P.M., Mr. Marcus Beck saw the case with me, and, agreeing in the diagnosis, proceeded to open the abdomen, assisted by Dr. Gamgee, Mr. Brodribb, and myself. Mr. Beck has furnished me with the following account of the operation. The patient, having been placed on a table, was covered with a mackintosh sheet having an oval opening in the middle (an ovariotomy apron). The skin was then carefully cleaned with a 1 in 20 solution of carbolic acid. Ether having been administered, a spray of carbolic acid was turned on. An incision was then made (about three inches in length) in the middle line, the middle of the wound being midway between the umbilicus and the pubes. The abdomen being opened, a coil of distended small intestine showed in the wound. The hand was passed at once into the right iliac fossa, with the intention of feeling for the cæcum, in order to ascertain whether it was distended or empty. Before reaching the cæcum, but close to it, a hard mass was felt in a coil of the small intestine. This was at once drawn up into the wound and out of the abdomen. It was then seen that the gut was completely plugged by a barrel-shaped body of great density. The gut was apparently healthy; its surface was shiny and perfectly free from any sign of inflammation. An attempt was made to push the foreign body forwards, the direction in which it should go being easily recognised by the distended condition of the intestine above it, while below the gut was empty; it would not move with any amount of force which it seemed justifiable to use. It was determined, therefore, to cut it out by a longitudinal incision in the intestine. The opening in the abdomen was carefully plugged with sponges which had been rung out of a warm solution of carbolic acid (1 in 40), and the coil of intestine was laid upon a flat sponge; a small hole was then made in the mesentery close to the gut, immediately above the foreign body; through this a piece of indiarubber drainage-tube was passed and drawn sufficiently tight to occlude the gut, and clamped with a pair of forci-pressure forceps. In this way the escape of fæces from above was effectually prevented. A longitudinal incision was then made at the side opposite the attachment of the mesentery. It was about one inch and three-quarters in length, and was of sufficient size to allow of the escape of the foreign body without bruising the tissues of the gut. A small quantity of very dark fæcal matter escaped, which was immediately received on a sponge. The mucous membrane was intensely injected and considerably swollen. But little blood flowed from the incision. The gut having been cleaned, the edges of the wound were brought together by interrupted Lembert's sutures. Fine common sewing needles were used (No. 7), threaded with fine carbolised silk. The needle was inserted about a quarter of an inch from the edge of the incision, penetrating the serous and muscular coats only, and brought out about one-sixth of an inch from the edge; then inserted on the opposite side about one-sixth of an inch from the edge, and brought out a quarter of an inch. About a dozen stitches were required and were inserted. When all the necessary sutures were inserted, they were tied. The closure seemed perfect, the mucous coat being turned in and the serous from each side brought well in contact. The piece of indiarubber tube was now removed; it had made rather a deep impression in the gut, showing the swollen condition of the bowel. The impression began to disappear immediately, the circulation being rapidly restored in the pale part. The incision was then minutely examined to see if anything leaked from it, and nothing was detected. The coil of intestine was then carefully cleaned, the sponges plugging the abdominal wound removed, and the gut replaced in the abdomen. During the whole operation no blood or other foreign matter had escaped into the peritoneal cavity. It was not necessary, therefore, to clean out the peritoneum by sponging or washing. The external wound was then closed in the usual way. The anæsthetic was admirably administered by Mr. Brodribb, so that at no time was there the slightest trouble from any movement on the part of the patient. There was but little shock. The wound was dressed with sal alembroth gauze, covered by a layer of sal alembroth wool. The foreign body was found to be a large gall-stone. It was somewhat the shape of a conical bullet, the advancing end being slightly conical, the opposite end flat. It was marked at its base by a smooth, slightly concave facet, evidently formed by contact with another stone in the gall-bladder. The rest of the stone was rough on the surface, and glistening crystals of cholesterine could be seen upon it. This roughness must have considerably impeded its passage down the intestine. It measured $3\frac{1}{4}$ in. in circumference, $1\frac{3}{4}$ in. in length. It weighed almost exactly an ounce. The patient rallied well from the operation. A dose of morphia was administered hypodermically, and at 9 P.M. the pulse was 100, and of good force; there was no pain or sickness, and the patient seemed to be doing well; but on the following morning the pulse had risen to 120, the countenance was anxious, there was slight distension and some tenderness of the abdomen, but no sickness. He died at 3 P.M., exactly twenty-five hours after the operation. No post-mortem examination could be obtained.

In the treatment of this case I was led to go somewhat beyond the orthodox way of feeding in intestinal obstruction by the willingness of the patient to take food, by the fact of its being retained several hours, and from its not, as far as I could see, in the smallest degree promoting vomiting, and perhaps also from having less faith in the value of nutritive enemata than some have. The medical treatment consisted of opium and belladonna—the doses, in consequence of the moderate amount of pain, being comparatively small,—enemata, and, when they no longer acted, aperients. I was led to try aperients from the recollection of a case I had some years ago, when the combined use of aperients and enemata resulted in the passing, after ten days' absolute constipation, of a stone so large that its passage through the anus caused great suffering.

The following points seem worthy of further consideration in this case. 1. What was the cause of death? Unfortunately this question must remain doubtful. He did not die from shock, for he rallied well from the operation. Every precaution was taken to ensure cleanliness, no carbolic lotion except that upon the hands entered the abdominal cavity, the stitches seemed efficiently to close the gut, and well carbolised silk was used, and yet from the period of death it seemed most probable that peritonitis was the cause. The gut, though not actually inflamed at the time of operation, was much congested and swollen. Most probably inflammation developed in the damaged gut after the operation, and in the weak state of the patient proved rapidly fatal. 2. When was the stone impacted? This could not be accurately ascertained. From the size of the gut and the situation in the abdomen it was probably in the lower part of the ileum, not far from its end. That it was the ileum is certain from the absence of the valvulæ conniventes in the part opened. 3. Was the operation necessary, or would it have been safer, having made the diagnosis, to trust to nature? This question is extremely difficult to answer. I find in the Index Catalogue of the library of the Surgeon-General, U.S.A., references to thirty-nine cases of impacted gall-stone. Of these I have been able, with the limited time at my command, to refer to only fourteen. Among them, I find, is a stone measuring $3\frac{1}{2}$ in. passed safely after twelve days' obstruction. In another case there was a stone of a little over three inches, but there is no evidence that it passed down the small intestine; it probably ulcerated from the gall-bladder into the colon. Fagge also mentions one measuring $1\frac{1}{10}$ in. in diameter, which passed after seven days' obstruction. On the other hand, I found seven stones, proving fatal, which measured less than that from my patient; the smallest had a transverse circumference of only $2\frac{1}{4}$ in., and yet it blocked the lower end of the jejunum, and caused death after fæcal vomiting. It seems, therefore, that although it is possible for a patient to pass stones of this size through the ileo-colic valve, very few succeed in doing so, and probably the percentage of recovery would be greater if operation were resorted to in every case as soon as the diagnosis is made. Unfortunately, however, the diagnosis is very rarely made at all. In almost all the cases I have met with, their nature was only cleared up at the post-mortem examination. I can find no case but this in which the stone has been removed by operation. The disease is far more common in women than in men. In the fourteen cases I have been able to refer to only two were men.

Hastings.

CLIMATE AS A THERAPEUTIC AGENT IN PHTHISIS;

WITH AN ACCOUNT OF THE CHIEF SANATORIA FOR PHTHISIS AT HOME AND ABROAD.[1]

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I PROPOSE in this paper to consider four questions:—1. Does climate cure phthisis? 2. How does climate cure phthisis? 3. What climates cure phthisis? 4. What cases of phthisis are curable by climate?

1. Does climate cure phthisis? Yes, beyond question. To doubt this fact is to run counter to a vast mass of unassailable evidence and to give way to an unreasoning scepticism. I have met and talked with cured consumptives in many parts of the world—patients in whom the existence of the disease had been diagnosed by competent authorities, and the genuineness of whose recovery was testified by a long life of vigorous activity. These instances of complete recovery are, however, less common than cases of relative recovery, by which I mean those cases in which the morbid process in the lung becomes dormant and the patient lives out his days, but with diminished vitality, and maimed, as it were, for the rest of his life. It is an extremely important question to determine how many of these cases of cured phthisis are contingent upon the patient remaining in the country and climate where the cure was effected—are, in technical language, relative to his environment; and how many are so complete as to permit of a safe return to the unfavourable climatic conditions which prevail at home. Every practitioner who sees much chest disease has had distressing cases of consumptive patients who have gone abroad and apparently been cured, but who, yielding to that piteous home-sickness which sometimes assails the stoutest heart and disregards the plainest admonitions of prudence, have returned home, and returned to die. I fear that in a large proportion of cases the cure of phthisis is contingent and conditional, and I do not think we can often regard without serious concern the return of a cured consumptive to those climatic conditions which originally produced or predisposed to the disease.

2. How does climate cure phthisis? Not usually by a single or specific quality of the air or by any definite combination of meteorological conditions. The old notion of "healing air"—viz., that the air by virtue of some inherent virtue exercised a direct local curative influence upon tubercular deposits—is a delusion. Bournemouth and Arcachon profess to cure phthisis by the balsamic emanations from their pine forests, but if such emanations have any influence (which is quite doubtful), such influence is but a small and unimportant factor in their general climatic effect. The nearest approach to a specific climatic influence upon phthisis is found in the action of the climates of high altitudes, which has been abundantly proved to depend mainly upon the rarefaction of the air. To sum up this branch of the subject, climatic treatment cures phthisis by removing the consumptive from the evil influences of unfavourable meteorological conditions and of an injurious soil, and by transferring him to a climate where fresh air, sunshine, and an out-door life may be freely enjoyed, and where, in consequence, the processes of respiration, digestion, and sanguification proceed with sufficient energy to combat successfully the hereditary tendency or individual proclivity to pulmonary disease.

3. What climates cure phthisis? There are very many sanatoria which have been *alleged* to cure phthisis, but it is a significant circumstance that, while every year introduces some new claimant to attention, it also witnesses the dropping from the ranks of some discredited impostor. Time was when Montpellier was the reigning favourite. It is now almost forgotten. Pau and Nice have quite outlived their once universal fame. Jersey, with its capital St. Heliers, once boasted great things, but we now know that its boasting was vain. The above losses of popularity have been amply justified, but other fluctuations of medical opinion and practice have been more arbitrary. The most favoured health-resorts of the past generation were Madeira and Egypt. They are both at present under a cloud, but it will probably be a temporary cloud, as, for properly selected cases, these noted and long famous sanatoria have very decided advantages. The chief feature of modern practice is the great and growing popularity of the high altitude stations.

The number of health-resorts for phthisis is so vast that some classification must be attempted, though no satisfactory classification has yet been suggested. In default of better, let us divide sanatoria into three classes:—(*a*) The marine resorts. (*b*) The dry inland resorts. (*c*) The mountain resorts.

(*a*) The best marine resort, if I may so express it, is the ocean-going ship; on the high seas the peculiar features of the marine climate are enjoyed in perfection. Those features are great purity of the air and freedom from all sources of contamination, marked humidity, and very great equability, both as regards temperature and hygrometric condition. The general influence of ocean air is decidedly tonic, and improvement in appetite and gain in weight are almost universal on shipboard. The disadvantages of the sea voyage are—liability to sea-sickness, which is a serious difficulty in only 2 or 3 per cent. of cases; the want of proper sleeping-room, and the consequent contamination of the air at night; and the absence of many home comforts. No consumptive should undertake a sea voyage unless he can afford to travel with tolerable comfort, pay for a roomy cabin, and have suitable companionship. The sailing-vessel should in nearly every case be preferred to a steamer, and the voyage to Australia or New Zealand *viâ* the Cape of Good Hope is the most adapted to the consumptive. The usual time of departure for Australia is September or October, but this is an unfortunate arrangement, as the invalid thus lands at the antipodes at the beginning of summer, the worst and most trying of the Australian seasons. A better plan is to set sail in July or August, so as to reach Australia during the charming and healthful time of spring. Sailing-vessels occupy from seventy to ninety days upon the passage. The sea voyage confers at least temporary benefit upon the great majority of consumptives, except those cases of great debility and prostration which should not be sent to sea. In the course of my four long voyages I have had as fellow-passengers a vast number of consumptives, who, with scarcely an exception, were happy and comfortable at sea, gained in weight, and experienced an amelioration of all their worst symptoms. It is a dictum of most writers upon the climatic treatment of phthisis that hæmorrhagic cases should not be sent to sea. I greatly doubt the accuracy of this view. I have only known two cases of hæmoptysis occurring at sea, and neither proved serious. I am quite unable to understand any theoretical ground on which hæmorrhage should be apprehended on shipboard. When the sea voyage fails, the causes of failure are often obvious. Excessive debility, rendering the patient unable to accommodate himself to the novel conditions of life at sea, sea-sickness, longing for home, which is apt to be strong amid the solitude of the ocean wastes, an uncomfortable ship, an overcrowded cabin, and an improper dietary—these often retard or prevent the beneficial influence of the sea voyage. There is one important point, of which my experience has afforded me several melancholy instances—viz., the proneness to relapse on reaching land. The patient should be warned to practise great caution as regards diet, exercise, and general habits on landing after a long voyage. Nearest to the climate of ocean comes that of the ocean islands, such as Madeira, Teneriffe, the Azores, Nassau in the Bahamas, &c. Cases that have been known to do well on shipboard may be sent to these resorts with tolerable confidence, the climatic conditions being similar. There is admirable accommodation at Madeira, and many cases do well there; but diarrhœa is so epidemic as to be known as the "island complaint," and no case of phthisis should be sent there in which intestinal troubles have been much marked. The climate is very soft and soothing, and grateful to those suffering from bronchial or laryngeal complications, but it is deficient in tonic influence, and its effect upon the general course of the disease is decidedly inferior to that of more bracing localities. Patients may be sent there who lack the necessary vitality to enable them to react to tonic climatic conditions. Of the drier and more tonic marine resorts, Algiers, Tangier, and Malaga are perhaps the best. The reputation of the Riviera is decidedly on the wane. Many seasons are delightful, but often the mistral is exceedingly treacherous, and snow-storms

[1] Paper read before the Ulster Medical Society, Feb. 2nd, 1887.

are not unknown. The chief stations in the Riviera are Hyères, Cannes, Nice, Monte Carlo, Mentone, Bordighera, and San Remo. Nice has quite lost its old reputation, owing to the sudden changes to which it is subject. Cannes is a lovely spot, but inferior to Mentone and San Remo for the purposes of the invalid. Where much shelter is a desideratum, Mentone should be preferred. Otherwise, San Remo possesses the best climate in the Riviera. Algiers is a great favourite at present. It possesses a dry, sunny, warm winter climate, with complete immunity from frost and fog. There are very few days on which the invalid cannot enjoy several hours of out-door life, and the proportion of charming weather is far higher than upon the northern shore of the Mediterranean. Consumptives should in no case reside in the town, which is very dusty and a prey to evil odours, but should choose the suburbs, such as Mustafa Inférieur or the Village d'Isly, and, as spring advances, a change inland to the dry and bracing climate of Hammam R'lhra or Milianah may be advantageously adopted. Tangier resembles Algiers in its general climatic features, but the accommodation is inferior, and it is a very dull place. Malaga has a very good climate, but there is nothing to do, and patients soon weary of it. Biarritz is an excellent place in autumn, but too windy for a winter residence. Arcachon suits cases where nervous irritation is marked. As regards the marine resorts in Britain, Ventnor, Bournemouth, and Torquay are the best, and I have given them in what I consider as the probable order of merit. Ventnor is the warmest and driest of these resorts. Bournemouth has more shelter, and suits cases which cannot tolerate the more decided marine flavour of the air at Ventnor. Glengarriff is probably the best winter climate in Ireland. Rostrevor has some local repute, but it has little to recommend it. There are some excellent marine resorts in California, of which Santa Barbara is the best known. The Californian coast in its southern parts enjoys a remarkably dry, bright, and tonic climate, well adapted for many cases of phthisis. Tasmania has a climate of great salubrity, but there are many very diverse climatic types included within the area of that small island. The west coast is stormy and wet, and wholly unsuitable to the invalid. The southern coast is somewhat too windy. The best regions for the consumptive are the north and north-east shores, which possess one of the brightest, mildest, and most genial climates in the world. The coast region of Australia cannot in general be commended, being a sort of battle-ground for the breezes from the sea and the hot blasts from the interior, and the climate is in consequence fickle and stormy. The most favoured region in Australia for the consumptive is the interior plain, of which I shall speak presently. The best marine resorts in New Zealand are Napier and Nelson. Speaking generally, the reputation of marine resorts has somewhat waned in proportion as the fame of the dry inland and the mountain sanatoria has increased. No marine resort is, I think, quite equal to the ocean voyage, where the latter can be enjoyed under the most favourable circumstances.

(*b*) The dry inland resorts. The best of these are Nubia, the interior parts of Algeria, the Orange Free State, and the vast interior plains of Australia, especially the Riverina of New South Wales and the Darling Downs of Queensland. I am inclined to rate very highly this type of climate in the treatment of phthisis. A large proportion of the cases of complete cure which I have known have been effected by a prolonged residence in some dry inland region, the cure being, without doubt, in nearly every case materially promoted by the adoption of an open-air life, plain diet, and simple manners. Of the four regions mentioned, probably the Orange Free State is the best, as it possesses an advantage over the others in being at a considerable elevation. But personal considerations will lead in many cases to the selection of Australia, and it is no small advantage to send the consumptive to the land where he will meet his own kith and kin, where the language, food, and manners of the people will be familiar and congenial to him, and where he may possibly find such remunerative employment as may induce him to settle permanently. Speaking broadly, I would send to Australia only those consumptives to whom a dry inland climate would be thought to be beneficial, advising them in all cases to avoid the coast regions, and especially the capital towns, to go inland at once, settle upon some farm or sheep station, and make up their minds to a residence of at least two years. A large proportion of cases would thus be cured. To recommend Australia as a sanatorium for phthisis without keeping these points in view is to invite failure and disappointment.

(*c*) The mountain resorts. These sanatoria have sprung into sudden favour within the last twenty years, and their popularity grows yearly. The chief are Davos, Wiesen, St. Moritz, and the Maloja in the Alps; Colorado Springs and Manitou in the Rocky Mountains; Bogota, Jauja, and Huancayo in the Andes. The almost complete immunity from phthisis enjoyed by residents at high altitudes first suggested their adoption. The most important feature in the medical climatology of the mountain sanatoria is the rarefaction of the air, which promotes respiratory activity, the expansion of the chest, and the absorption of morbid deposits. The dryness, the purity of the air, and the freedom from organic dust are all of importance, but subsidiary to the atmospheric rarefaction. These sanatoria fall into two classes—the cold and the warm. In the Alps and the Rocky Mountains the winter climate is marked by perpetual snow and severe frost. In the Equatorial Andes the climate at high altitudes is one of perpetual spring—humid, warm, and vernal. The mountain resorts have proved most efficacious in the following cases: delayed recovery from pneumonia with threatening tuberculosis, chronic pleurisy with much fibroid change, incipient catarrh of the apex, chronic tubercular phthisis, with good reaction and the retention of fair constitutional vigour, whether cases of primary disease limited in extent, or single cavity cases without tendency to extend. Hæmorrhagic cases do well, although the profession was long inclined to exclude such cases from the mountain treatment owing to the unfortunate influence which a false analogical reasoning had exercised upon them. The contra-indications against the adoption of this line of treatment are: Weak circulation, which is absolutely prohibitory, senile change, the *eretische constitution*, extreme debility, and marked and progressive emaciation. Moderate pyrexia is not a hindrance, while sweating and fluxive diarrhœa are usually relieved at high altitudes. Where the cold mountain resorts fail the warm may often prove useful.

4. What cases of phthisis are curable by climate? I have hitherto spoken somewhat dogmatically, as the general principles of medical climatology and the general characters of the sanatoria for phthisis admit of very precise statement; but in dealing with this last question—to which I have more than once been obliged to make incidental allusion—I desire to speak with that diffidence which becomes the therapeutist. In many cases there are few more difficult problems than to determine whether a given case of phthisis will respond to climatic treatment, and what type of climate affords the best hope of success. Speaking generally, only chronic cases with fair reaction are suitable for climatic treatment. If the disease has a well-defined onset and threatens to run an acute or semi-acute course; if the patient steadily loses ground and shows no gain in weight or other sign of rally under treatment; if the process in the lung is progressive and there are no evidences of repair—in each and all of these cases the interests of the patient will be best served by vetoing climatic treatment. The patient will die soon and die anywhere, and he may as well be allowed to pass his last days amidst the comforts and sympathies of home. Cases marked by circulatory weakness, with fast, feeble, fluttering pulse, slight cyanosis, and persistent coldness of the extremities, are very unfavourable for climatic treatment, and should on no account be sent to the mountains. Cases in which laryngeal or intestinal ulceration or renal complication have supervened upon the ordinary type of the disease should be allowed to die at home. Cases in which anæmia appears early and is well marked are unlikely to respond to climatic treatment. On the other hand, we see a vast number of cases of phthisis in which the onset is very gradual and the constitutional involvement for a long time slight. Such cases nearly always improve, even in this climate, under a system of high feeding, fresh air life, and cod-liver-oil, and I entertain no doubt that a considerable proportion of them may be completely cured by removal to a suitable climate and the adoption of a prudent mode of life. In determining the climate to be chosen, it used to be taught that the condition of the bronchial mucous membrane was the chief guide: that cases with much bronchial catarrh should go to a dry climate, cases with dry irritable mucous membrane to a moist sedative climate, and so on. I greatly doubt the utility of this rule. Phthisis is not bronchitis, and all

analogies for its treatment drawn from our knowledge of bronchitis are not merely unfruitful but misleading. In the therapeutics of consumption we have given up directing our medicinal treatment to the bronchial mucous membrane, and I am unable to see why we should still base our climatic treatment on a theory which we thus implicitly acknowledge to be unsound. Hippo, paregoric, and squills have almost disappeared from our treatment of phthisis; and climatic sanatoria, which soothe the patient's cough at the expense of his appetite and strength, must follow them into deserved oblivion. The consumptive does not die of his cough. He dies of progressive wasting. We have thrown aside expectorants and anodynes in favour of good food, exercise, and such aids to nutrition as cod-liver oil, hypophosphites, maltine, &c., and we must, when possible, choose climatic resorts which are tonic and stimulant rather than those that are mainly sedative. The vital point about any climate is, will it promote nutrition? In early uncomplicated cases with vigorous circulation I think the mountain climates offer the best hope. If the circulation be feeble, or if there be much nervous irritation, the choice will lie between the sea voyage and residence in such dry inland resorts as Upper Egypt or the interior plains of Australia. The sea voyage has the great recommendation that it rarely does harm, except in those very advanced cases which are beyond the reach of all treatment. If the patient objects to the mountains and shrinks from the long sea voyage, I think Algeria or Morocco should be preferred to France or Italy. Let me say, in conclusion, that climatic change is a snare instead of a help, a curse rather than a blessing, if it be regarded as a complete therapeusis in itself, and as enabling the patient to dispense with the usual lines of treatment and his customary precautions. Climate is not a specific. At best it is only a condition of cure, and we may expect it to be effectual only when the patient's food, habits, occupation, and mode of life are wisely regulated so as to facilitate its beneficent influence.

Belfast.

TRACHEOTOMY.

BY WALTER WHITEHEAD, F.R.C.S.E., F.R.S. ED.,
SURGEON TO THE MANCHESTER ROYAL INFIRMARY, ETC.

THE operation of tracheotomy is in many cases confessedly a difficult one to perform. This is emphatically shown by the amount of literature written upon the subject, by the many different ways which have been described and practised, and also by the many dangers warned against. My excuse for proposing any change in the methods usually adopted is the simplicity of the plan I have to suggest, and the ease and success which have invariably attended its performance.

The operation is performed as follows. The head of the patient being bent well back over a pillow, an incision is made in the usual situation, but of rather greater length than is common. The incision extends through the skin and fascia, as deep as the interval between the sterno-hyoid muscles. The scalpel is now laid aside, and the raspatory used, not only to separate the sterno-hyoids, but to split the strong fascia which runs down from the hyoid bone to enclose the isthmus of the thyroid gland. This fascia is split to a distance extending from the upper limit of the incision down to the isthmus below—that is, supposing it is desired to open the trachea above the isthmus. The split fascia is then pushed to right and left with the raspatory. Should there be any difficulty in doing this, the fascia is separated to some extent on each side from the upper border of the isthmus. Proceeding carefully, the isthmus itself can be pushed down and the trachea exposed to the necessary extent. If the trachea is to be opened below the isthmus we proceed in a similar manner, remembering that here, however, we have between the fascia and the trachea a quantity of areolar tissue in which lies the inferior thyroid plexus of veins. The front of the trachea can in this way be cleared perfectly, and, since the method is bloodless, the rings of the tube are seen glistening white at the bottom of the wound. The trachea can now be fixed readily between the left index finger and thumb, and opened to the desired extent. There is little or no difficulty in introducing the cannula, since the trachea can be so steadily fixed and the incision into it so clearly seen.

The above method resembles in many particulars the "bloodless" method of Bose, but in the latter operation the scalpel is used to a much greater extent than in the operation here advocated, and when the scalpel is not to be used the use of the director is advised. But the walls of the veins in this region are very thin, and the sharp edges and point of the director have been frequently known to tear these vessels and rob the operation of its bloodless character. This tearing of the veins is much less likely to occur if the raspatory is used. Moreover, the above operation with the raspatory is not only suitable for cases where the surgeon has abundant time at his disposal, but is advised even in emergency tracheotomy; since, although perhaps a little more time is required to reach the trachea, the certainty that when once reached it can be quickly opened and entered is a distinct ultimate gain. What is urged in favour of the operation is—firstly, the ease with which it can be performed; secondly, the small number of instruments required; and, thirdly, the manner in which it meets the four difficulties usually enumerated—viz., of reaching the trachea, of hæmorrhage, of opening the trachea, and of introducing the cannula. Again, it avoids, in an especial manner, those dangers met with when the operation is performed, as it too often is, practically in the dark, from the bleeding, and the not sufficient separation of the parts; thus it is impossible, in this operation, that the cannula should be pushed down between the trachea and the fascia lying in front of it, or that it should be thrust, as has actually happened, into the internal jugular vein. Our resident surgical officer, Mr. J. Collier, who is frequently called upon to perform tracheotomy in emergencies, has definitely adopted the operation described since seeing me open the trachea some months since for the extraction of a gun cap accidentally inspired into the trachea.

Manchester.

THREE CASES OF STONE IN BOYS; REMOVAL BY SUPRA-PUBIC CYSTOTOMY.

BY THOMAS WALKER,
SURGEON TO CLAYTON HOSPITAL, WAKEFIELD.

CASE 1.—Arthur M——, aged three years, was operated on by me on August 2nd. Dr. Wright administered chloroform. I was assisted by Mr. Eskrigge, house-surgeon, and Mr. J. W. Walker, Dr. Holdsworth also being present. The bowel having been emptied by an enema, and chloroform given, an indiarubber rectal bag was introduced, and three ounces of warm water injected into it. A catheter was then passed, and the bladder gently distended with a warm solution of boracic acid, the catheter removed, and a tape tied round the penis. An incision, about two inches and a half long, was made through the skin above the pubes and the tissues separated with the finger-nail and knife down to the bladder; two hooks were introduced into the bladder, when a little fluid escaped. A small opening was made between the hooks, which was enlarged by the finger, and the stone, which was easily felt, removed. The bladder was then explored and washed out with warm boracic acid solution. The wound in the bladder was closed with fine catgut sutures. Four stout silk sutures were inserted in the external wound, the lower one being left untied in case all the urine did not flow by the natural passage, as no catheter was left in. However, as he passed urine three times during the first night, the remaining suture was tied next day. During the operation no artery or large vein was met with. There was very great tenesmus to expel the rectal bag during the latter part of the operation, which brought down the peritoneum into view in the upper part of the wound. On the fifth day a sudden rise of temperature occurred, with symptoms of extravasation extending into the scrotum, which, I think, was owing to the vesical wound not being entirely healed when the catgut sutures became absorbed, consequently the urine escaped into the tissues. On removing the external sutures, however, the urine passed through a small hole at the lower part of the wound, and the symptoms of extravasation quickly subsided. Two incisions were also made into the scrotum, to relieve the swelling. The calculus was of uric acid, weighing eighty-nine grains.

The following notes of the case were kindly supplied by the

house-surgeon:—Aug. 2nd: After the operation the patient was troubled with persistent vomiting. He passed his urine three times during the night, which had no blood mixed with it. Temperature 99°.—3rd: Wound dressed, the dressings were a good deal stained with blood; the lower stitch through the external wound (which had been left untied after the operation) was now tied. The patient passed urine six times during the day, but no blood. The vomiting has now ceased. Morning and evening temperature normal. 4th: No stain through dressings; passed urine naturally; no pain. Temperature, morning, 99°; evening, 99·5°.—5th: Wound dressed; no blood or urine on dressing. Passed urine naturally. Temperature normal.—6th: Passed urine freely; had a very comfortable day. Morning temperature normal, evening 100°.—7th: Wound dressed; looked rather puffy and red about the stitches, so the alternate ones were removed. Urine passed naturally. Temperature, morning, 99°; evening, 101°.—8th: Considerable extravasation of urine into the tissues and the scrotum took place in the night. The dressings were removed and the other two stitches taken out; some urine oozing from the lower end of the wound. The scrotum was incised on each side of the raphe, and fomentations were applied. Temperature, morning, 100°; evening, 100·5°.—9th: Swelling of the scrotum subsiding; urine passed freely from lower part of wound. Temperature, morning, 99°; evening, 99°.—11th: Urine passed freely through wound; scrotum natural size; general health good. Temperature, morning, 98°; evening, 99°.—16th: Part of urine still passing through the wound, which is swollen. Temperature normal.—20th: Only a drop or two of urine passing through the wound.—24th: Wound healed; general health excellent.

CASE 2.—James H——, aged eight years, was admitted suffering from stone. Supra-pubic cystotomy was performed on November 9th; a very rough stone, weighing 50 grains, was extracted. In this case the wound in the bladder was not sutured, and only two sutures were used in the upper part of the external wound. No catheter was left in the bladder, the urine passing through the artificial opening. Twenty-four hours after the operation he had a rigor. Temperature 102°; the abdomen becoming tympanitic, with pain on pressure. Fomentations were applied, and small doses of opium given. On the following day the temperature was 99·5°; pain much less; abdomen tympanitic. On the fourth day, the bowels having acted, the tympanites and pain gradually subsided. The urine was entirely voided through the wound for the first fortnight, then partially by the urethra. The wound gradually healed by granulations, and the patient was discharged well on December 18th.

CASE 3.—Edward N——, aged four years, was admitted suffering from stone. Supra-pubic cystotomy was performed on Nov. 21st; the stone weighed twenty grains. In this case the wound in the bladder was carefully closed with fine catgut ligatures, not drawn tightly, the linea alba was sutured with stout catgut, and lastly the skin, the lower part of the wound in the skin being left open, in case any urine should escape from the bladder; however, not a drop came away, but all passed easily through the urethra to the end. The wound healed quickly, and without any complication.

Remarks.—I think the supra-pubic operation has a bright future before it. I am of opinion that the danger to life will not be found greater than in the ordinary operation, and, as there is no fear of injuring important parts and functions, this must necessarily be taken into account as a factor in its favour.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.—A quarterly court of the directors of this Society was held on Wednesday, April 13th, Mr. Tegart, V.P., in the chair. Three new members were elected, and the death of one announced. Applications for grants were read from sixty-three widows, six orphans, and three orphans on the Copeland Fund, and a sum of £1364 was voted, to be distributed among them at the next court. The expenses of the quarter were £56 6*s.* 6*d.* Dr. Birkett, Dr. de Havilland Hall, Mr. Langton, Mr. Morris, Dr. J. M. Bright, and Dr. H. M. Duncan were selected to fill the vacancies in the court caused by the retirement of the six senior directors. Mr. Fuller, acting treasurer, was nominated as a trustee of the funded property in place of Sir George Burrows, resigned. The annual general meeting was fixed to be held on Wednesday, May 18th, at 5 P.M.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

THREE CASES OF HÆMOPHILIA IN THE SAME FAMILY.

BY HENRY SKELTON, M.D., M.R.C.P.

IN 1881 I was called to A. P——, a lad of about twelve years of age, who was passing blood in his urine to a large extent. His case, apparently, was relieved by gallic acid and rest, and I thought no more of it, particularly as I could make out no cause for the hæmorrhage; and as he seemed to get well, I did not trouble any further about him. In 1882 I again saw the lad, who was then bleeding from his nose. The epistaxis yielded to iron internally, and frequent injections of a strong solution of perchloride of iron into the nares.

Soon after this I was called to another child of the same family (aged one year and four months) who had an abscess on the vertex, the result of a fall from a perambulator three weeks before; and as the abscess was causing a great deal of constitutional disturbance I opened it and evacuated the matter. Copious bleeding ensued, and neither pressure nor the usual remedies stopped it, and the child died on the following day from loss of blood.

I have attended A. P—— several times since with bleeding from the mouth and swollen joints, which was undoubtedly effusion of blood. In 1884 I advised his parents to send him into the Bristol Royal Infirmary, where he was placed under the care of Mr. Greig Smith, who has reported his case fully in the *Bristol Medico-Chirurgical Journal*, No. 6, 1884. There is one error in the statement that blood has not been seen in his urine; I myself have seen it, and also nearly all the large joints distended with blood.

On March 23rd of the present year I was called to see Ernest C. P——, aged one year and five months, who, his his mother said, had been bleeding from the mouth since the middle of the night. I found his lips covered and the front of his clothes stained with blood. On examining his mouth the blood could be seen "welling out"—I know no other word that describes it—from the mucous membrane surrounding the teeth. He had cut the four upper incisors, two upper molars, two lower incisors, and was cutting some more teeth; but it was principally from the sockets of the upper incisors that the bleeding came. Various styptics were used, and internally ergot, hamamelis, turpentine, iron, and ruspini were all tried, and apparently without much effect, as the child died. He had become very anæmic, and before death took place was said to have been convulsed.

Remarks.—Heredity is the supposed cause in all these cases. The mother I have attended in several labours, and she always loses a great deal of blood, but generally does well, and is up, as a rule, on about the ninth or tenth day. She frequently suffers a great deal from attacks of asthma, hypodermic injections of morphine and grindelia robusta speedily giving relief. May not this neurosis, of which so little is known, have something to do in predisposing these boys to be bleeders? She—the mother—is one of eleven, three only of whom grew up, two boys and herself. One of her brothers is still alive; the other died from gastric ulceration. Her father, she states, died from asthma at an early age. That is all the family history I can get, and it is, I am sorry to say, a very meagre one.

Downend, near Bristol.

DISLOCATION OF THE SHOULDER; REDUCTION AFTER EIGHT DAYS BY MANIPULATION.

BY E. L. HUSSEY, F.R.C.S. ENG.

As a case of double right-angled traction, the following may be worth publishing.

A thin, spare man, below middle height, seventy years of age, employed as helper in some stables, fell on the tip of his shoulder at night on July 10th, 1867. He continued at his work, cleaning horses and carriages, and sometimes driving; but he could not raise his elbow, nor could he put

his hand behind him. He was sent to me on July 18th, by a practitioner to whom he applied for relief. The signs of dislocation at the shoulder were well marked, the head of the humerus resting below the coracoid process. After taking off the man's shirt, I laid him on his back upon a table, close to the edge, and attempted to make extension with my foot in the axilla as I sat on a chair at his side. Finding the position inconvenient, I gave up the attempt. Then, standing at the end of the table, behind the man's shoulder as he lay on his back, I drew the arm away from his side, with the forearm flexed at a right angle and the wrist raised perpendicularly upwards, the hand rather inclining to fall downwards. I kept the limb in that position by hooking my finger in the bend of his elbow, and diverted the man's attention by talking upon indifferent subjects. Forcible extension was not wanted. The muscles soon relaxed, and I then let the hand fall over, thus rotating the head of the humerus inwards, and the bone slipped at once into the glenoid cavity. The man ultimately recovered the perfect use of the limb.

Oxford.

BILHARZIA HÆMATOBIA.

By W. K. HATCH, M.B., M.R.C.S.,
SECOND SURGEON, JAMSETJEE JEJEEBHOY HOSPITAL, BOMBAY.

AFTER observing closely twelve cases of bilharzia hæmatobia in Bombay, where the disease appears to be more common than formerly, especially amongst Mussulmans who have made a pilgrimage to Mecca, I venture to send the following point in diagnosis, which may be of use to army surgeons, now that invalids are constantly returning from Egypt.

1. Pain during micturition, with stoppages of short duration. The pain is said to be of a *pricking* character, generally felt at the root of the penis, or sometimes in the glans. It is caused, I suppose, by the passage of the sharp-pointed ova, while the stoppage may be due to spasm set up by them or to clots. The character of this pain becomes important when no clots can be found in the urine.

2. The passage of a few clots of blood at the *end of micturition*. The urine is seldom seen discoloured, but a few small clots and shreddy fragments of fibrin will be seen, especially on standing. If the latter are examined, ova in quantity will usually at once be found; not so often in the blood clots. Should there, however, be no such fragments, a catheter may be passed, and the eye examined on withdrawal; shreds and ova will usually be brought away. It saves much trouble to do this, as the urine may be searched in vain; and the symptoms, even though ova are not found at first, will give rise to strong suspicion. In hæmaturia due to filaria sanguinis the urine is much discoloured, and jelly-like yellow clots are often present in large quantities, while there is no pain and rarely stoppages during micturition. I may add that the patient with bilharzia is often a strong robust man, and not the least anæmic, unless the disease has lasted for years. The time between the contraction of the disease and the passage of blood and other symptoms may be very short; one patient, who stayed at an hotel at Suez for fourteen days, suffering from them a month after his return to Bombay.

Bombay.

CASE OF POISONING BY HYDROCHLORIC ACID.

By C. H. ROBINSON, F.R.C.S.I.,
MEMBER OF THE COURT OF EXAMINERS, R.C.S.I.; FELLOW OF THE ACADEMY OF MEDICINE.

THE following short notes of a case of attempted suicide may be of interest, inasmuch as hydrochloric acid is not often used for this purpose.

On June 16th last a gentleman aged fifty, who for some time previously had lost his employment in a firm where he had been engaged for many years, during a fit of drinking swallowed an ounce of hydrochloric acid which he had obtained from a neighbouring chemist. Within a few minutes afterwards his wife gave him a mustard emetic, which acted several times, and I was sent for and saw him within an hour of the attempt on his life. He was much depressed, in a cold sweat, and complained greatly of pain in the stomach. There were a couple of stains from the acid about his lips. Very fortunately for the patient, he had taken his dinner shortly before he swallowed the poison. I prescribed the usual remedies, such as milk, magnesia, eggs, &c. The following day he complained of pain in the throat as well as in the stomach, and spat up constantly a quantity of thick mucus. Small doses of laudanum were given at short intervals to lessen the irritation of the stomach, but he was able to take without difficulty beef-tea and egg flip. After a few days the pain in the throat and stomach disappeared, and since then he has never complained of any difficulty in swallowing. I was told he had swallowed a quantity equal to two tablespoonfuls of the acid, but as the throat was affected in only a trifling degree I fancy the amount taken must have been considerably less.

Dublin.

AMPUTATION OF PENIS; COCAINE AS A LOCAL ANÆSTHETIC.

By DUGALD CHRISTIE, L.R.C.S., L.R.C.P. ED.

THE following case may be interesting as illustrating the value of cocaine as a local anæsthetic in minor surgery.

The patient, a Chinese merchant in this city, suffered from epithelioma of the penis. For over two years he had been going the round of the native practitioners, consulting them in vain, and only suffering severe torture from their often heroic but barbarous treatment. He came to me in a state of despair—weak, emaciated, with his nervous system, from prolonged pain and sleeplessness, in a state of extreme irritability. Although a year previously he had refused to submit to amputation as I recommended, he now readily agreed to our proposed method of treatment. Chloroform was carefully administered, but after a few inhalations, proving a bad subject for a general anæsthetic, it was decided to try cocaine. Twenty minims of a 5 per cent. solution of the hydrochlorate were injected, in five-minim doses, at short intervals, round the seat of incision, and into the urethra. A quarter of an hour after the first injection the part was amputated without the patient experiencing the slightest pain; indeed, he would not believe me when informed that the operation was over. Another point of interest is that, except from the large bloodvessels, there was hardly any hæmorrhage, doubtless due to the constricting effect of the drug on the capillaries. As to the after-treatment, there is nothing worthy of note, only that the anæsthesia produced seemed to last over a day, and that the patient complained of no pain after the operation. He recovered without a bad symptom, and now enjoys excellent health. I constantly use cocaine in eye operations, cataract, iridectomy, pterygium, and also in cases of fistula in ano, abscesses, &c., with most satisfactory results.

Houkden, North China.

CASE OF PLACENTA PRÆVIA.

By M. H. TAYLOR, L.R.C.P., L.R.C.S. EDIN.,

ON March 9th, at 6.30 A.M., I was called to a woman who was being attended by a midwife. The patient is a very stout woman, forty-three years of age, and was seven months advanced in her fourteenth pregnancy. I found her almost in a state of collapse, her lips bloodless, and I could scarcely feel her pulse at the wrist. I heard she had been bleeding since 4 A.M. On examination, I found, as I suspected, it was a case of placenta prævia. When I saw her the hæmorrhage had stopped, but on the least movement it came on again. Not thinking it judicious to do anything till she had rallied from the state in which she then was, I gave her brandy and milk, and waited for about half an hour, when she felt better. I then examined her more fully. The os was very soft and dilated, sufficiently to admit two fingers. I found the placenta immediately inside the os; it was detached and felt slightly ragged on the right side, the head presenting. I swept my fingers round and detached as much placenta as was within reach, and as I did this the os dilated so that I was able to pass my hand into the uterus, when by the bipolar method I turned the child and brought down the first leg I could seize (the right), till the foot protruded from the vagina. This I found stopped the hæmorrhage effectually, so I did nothing more for two hours, except to put on a binder, when the

patient felt much stronger and the wrist pulse was easily felt. I then brought down the other leg and delivered her. The child was dead. The placenta came away with a little trouble. I washed out the uterus with permanganate of potash solution, and at 11.30 A.M., when I left her, she felt quite comfortable. I repeated the washing out every day for a fortnight, during which time several small portions of membrane with many clots came away. Her temperature never rose above normal, and she made an uninterrupted recovery. I saw her on April 12th, and she felt quite well, and I hope will be able to resume her occupation of a laundress in a short time.

On subsequent inquiry, which I had not time to make at first, I was told that the hæmorrhage first came on at the latter end of January, was like ordinary menses, and lasted one day, when with rest it stopped. A week afterwards there was another "show," lasting the same period; four days after this a third came on, which ceased in a few hours; two days later she passed a large clot. On March 6th there was a little more hæmorrhage, which lasted an hour. The next was on March 9th, when I saw her. I have since learnt that the patient has a somewhat curious record of confinements. She has had fourteen children, and three miscarriages at three months each. She has ten children living, their ages varying from twenty-two to three years, and all healthy-looking. Her tenth was a case of spina bifida, and lived nine days. Her thirteenth was also spina bifida, and lived fifteen days. The first spina bifida was, I understand, tapped twice, but the second was not interfered with.

Richmond, Surrey.

LIGATURE OF THE INNOMINATE.

By THOMAS HENDERSON, M.B., C.M.

I HAVE thought the following brief notice of a somewhat rare operation of sufficient interest to merit insertion in THE LANCET.

The patient, a man of about forty-five years, was suffering intense pain from pressure by a very perceptible aneurysm of the second part of the right subclavian. Other means having been tried with no good result, Professor Durante of Rome determined upon ligature of the innominate. Accordingly, on March 25th the operation was performed, with strict antiseptic precautions, the vessel being tied in two places—viz., immediately below the junction of the subclavian and common carotid, and again slightly lower down. The vertebral artery was also tied. The ligature used was No. 3 carbolised catgut. The after-progress, up to the present date (April 5th) has been most satisfactory. Circulation in the right upper limb and side of the head has been completely restored, and the patient's general health is good, with the exception of obstinate constipation, which may account for a rise of temperature having occurred. The external wound, excepting a small drainage aperture, has healed by first intention.

Rome.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. THOMAS'S HOSPITAL.

SUCCESSFUL REMOVAL OF RIGHT OVARY FOR CYSTIC DISEASE NINE MONTHS AFTER OPERATION FOR HYDROSALPINX.

(Under the care of Dr. GERVIS and Mr. SYDNEY JONES.)

IN August of last year (see THE LANCET, vol. ii., p. 399) we published an account of the operation which this patient underwent for the removal of hydrosalpinx on the left side. She had suffered from pain and symptoms referred to this disease for four years; these had followed the birth of a child, and were so severe as to almost completely incapacitate her for any employment. At the operation the right ovary was apparently healthy, and was therefore not removed. She continued well for some weeks, and then pain commenced in the right side, making further operation necessary. We are indebted for the notes of the case to Messrs. Blunt and Sansom.

A. L——, aged nineteen, was readmitted under the care of Mr. Sydney Jones on Jan. 12th, 1886, after having been some months at a convalescent home, to which she went on her discharge from the hospital in June, 1886, having undergone an operation for hydrosalpinx on the left side. She now complained of great pain in the right side of the abdomen, which was persistent, but varied in intensity, increasing in paroxysms at intervals two or three times a day. It was also increased by any muscular efforts, and during the catamenial periods. Since the previous operation the catamenia had been regular, but scanty and very painful. She also complained of dragging pains in the lower part of the back after ordinary exertion. Pain had existed since the operation of last year, but had been gradually increasing in severity. The abdomen was somewhat distended, having a well-marked cicatrix in the middle line, without evidence of protrusion. There was considerable tenderness on pressure in the right iliac fossa, and also in the umbilical region. No tumour could be felt. The general condition of the patient appeared healthy, and the urine was normal, but she did not sleep well on account of the pain. On Jan. 30th, there was much pain in the right side, right hip, and back. The catamenia ceased the day before; had been very painful and scanty, lasting four days. She was transferred to the care of Dr. Gervis, under whose treatment she continued until the end of February.

On Feb. 15th the following note was made: "The external parts look healthy; there is, however, slight granular erosion of the external os. On passing the sound the uterine axis was found to be slightly retroverted, but of normal length. No pain on touching the fundus, and no hæmorrhage followed the withdrawal of the sound. On digital examination of the left fornix, no pain was felt by the patient, but when the finger reached the right fornix there was considerable pain, and a semi-elastic ovoid swelling was felt."

No improvement having followed the treatment employed up to this time, Mr. Sydney Jones again took her under his care, and on March 1st performed the following operation, the nature of which was explained to her. Ether having been given, an incision about three inches in length was made in the old cicatrix in the middle line of the abdomen. The peritoneum was opened with care after the arrest of all hæmorrhage, a finger introduced, and the peritoneum incised for the whole length of the wound. A large flat sponge was then introduced to keep the intestines warm, catch any blood, and keep the bowels out of the way. The ovary was then brought to the surface, and removed after the application of a double silk ligature to its pedicle, this being returned to the pelvis. The ovary was double the normal size, and several cysts were found throughout its body. The Fallopian tube was normal. On the left side the parts were healthy. There was no adhesion of the abdominal contents to the old cicatrix. The wound was closed with alternate silk and catgut sutures. The operation was done under the carbolic spray, and the wound dressed with iodoform, iodoform gauze, and salicylic wool. Morphia was given hypodermically in the evening, and she had a fairly good night.

March 2nd.—She complains of great thirst and a good deal of pain in the abdomen. Temperature at 2 A.M. 100°; at 8 A.M. 99°. Pulse 105.

On March 5th the wound was re-dressed and two sutures removed. On the 8th all the sutures were removed and from along the track which they had made pus exuded on pressure. For some time after the operation it was necessary to give her morphia injections, for although she did not appear to suffer much pain, still she was restless and very impatient of control, being difficult to manage, as on the former occasion. The suppuration which was noted on the 8th extended to the wound, and it was necessary to open this up somewhat in order to give freer vent. Much care was taken with the diet; during the first twenty-four hours only ice was allowed, then a drachm of milk every hour for a day, then this quantity was increased, and so on until it was considered safe to allow solid food. When suppuration came on in the wound and the temperature rose (on one occasion, the 8th, it reached 103·4°) the previous dressing was changed to boracic acid and warm water, strapping being applied after the removal of the sutures. When she

left the hospital on April 7th there was still a superficial granulating surface of slight extent, but her health was good and she was able to take a long railway journey. The abdomen was supported by a belt, and since she has been to the convalescent home, to which she went on leaving, her general strength has improved; she has lost her pain.

EXTRAVASATION OF BLOOD INTO THE THIGH; GENERAL TUBERCULOSIS; NECROPSY.

(Under the care of Mr. CROFT.)

The patient whose case is recorded below was admitted into St. Thomas's Hospital on the 27th of March, 1884, suffering from multiple fractures of the bones of the face, and fracture of the base of the skull and of the radius on each side. Optic neuritis developed under observation, and also left internal strabismus (see THE LANCET, vol. i. 1886, p. 105). The following account of the further progress and ending of this case, and especially of the post-mortem, is unusually interesting. The man never appears to have completely recovered from the injuries thus received, and was almost constantly under medical care for various ailments, dying at last from tuberculosis. The position and extent of the fracture of the base of the skull, the evidences of the old meningitis, which had evidently been severe, and the more recent inflammation with tubercle, are the points to which most attention will be directed. It is not often that we are able to follow throughout its course a case possessing so much clinical interest. The notes of the case have been supplied by Mr. G. R. Anderson.

W. H——, aged forty-one, housekeeper, was admitted into Edward ward on Jan. 21st, 1887, and died fourteen days later. The family history was good. He contracted syphilis fourteen years ago. Until the last three years he enjoyed good health; he then had an accident, sustaining severe injuries, and lost the sight of the left eye. Since then he has had bad health. In April, 1886, he was admitted for ascites and pleurisy, and has attended the out-patient department since for chronic bronchitis. About five or six weeks ago he first noticed pain on the inner side of the left thigh, and thought that he had strained it. The day before admission he noticed swelling in that situation. This seemed to come suddenly; the pain at the time was intense, and he nearly fainted with it.

On admission he was sallow, and had some facial deformity, with internal strabismus of the left eye, there being complete paralysis of the external rectus and complete atrophy of the disc, the result of the old accident. He complained of pain and swelling along the inner side of the left thigh. Here there was a tense ill-defined swelling, extending half-way down the thigh from the flexure of the groin. There is ecchymosis over the upper part of the swelling, and this is said to be increasing; the swelling is tender on deep pressure. The femoral artery can be easily felt, and also the vessels in the leg. His arteries generally are diseased, very hard, and tortuous. The heart is normal. He is under treatment for chronic bronchitis. Urine normal. Temperature 101·8°; pulse 100, full, and bounding. On both legs there are scars of old syphilitic ulcers. A flannel bandage was applied from the foot upwards, and an ice-bag placed over the swelling.

Jan. 24th.—There is some decrease in the size of the swelling; it is less tense, but there is surrounding œdema, and the ecchymosis has spread. There is slight enlargement of the glands in the groin. The limb is quite warm. He is complaining much of headache.

25th.—Warm lead lotion applied to thigh, the condition of which is much the same. There is a somewhat petechial erythematous eruption about the face. Respiration rapid; pulse 96. Tongue dry, and covered with a whitish-brown fur.

28th.—There has been continued complaint of headache, not relieved by iodide of potassium, and only slightly by bromide of potassium. He has been sick constantly during the day.

30th.—Continued headache, with some tenderness of scalp. The rash on the face has faded and the swelling of the thigh is diminished. Tongue and lips dry and brown.

31st.—Some difficulty in breathing, the inspiration being noisy, with expectoration of bronchitic character.

Feb. 3rd.—Patient lies on his back, breathing somewhat heavily; is apathetic, and does not answer questions readily. His lips are dry, brown, and cracked. Tongue dry, with a dark-brown fur. Pulse full, 90. There is some impairment of power in the right arm.

During the last few days he had complete loss of appetite refusing to take food, and emaciated rapidly. The headache was severe, and not much diminished by medicine. He died on the 4th, in an unconscious condition. The highest temperature recorded was on the evening of the 23rd, when it reached 102·4°. It was usually higher in the evening until the 28th, after which date it did not exceed 99°, and was normal before death.

At the post-mortem examination, held on the following day by Dr. Hadden, there was well-marked tubercular peritonitis with adhesions; tubercles in the kidney and also in the lymph covering the surface of the lungs, but none in the lungs. "There was a united fracture, evidently quite old, of the middle fossa of the skull, which extended from near the apex of the petrous bone obliquely forwards and outwards to the anterior margin of the fossa. The margins of the longitudinal fissure of the brain were pretty firmly adherent in the anterior half, and the tips of the frontal lobes were adherent to the dura mater. There were evident signs of old meningitis at the base. The pia-arachnoid was thickened and opaque, especially over the optic nerves, chiasma and tracts, the crura and pons. The optic nerves were dull-grey and the chiasma and tracts distinctly changed in colour. There was no marked diminution in size. The left third nerve was greyer than the right and more flattened. The corpora quadrigemina were normal in size and appearance. The edges of the fissure of Sylvius were firmly adherent, and in separating them several grey tubercles were seen. There was no recent lymph anywhere. The lateral ventricles were a good deal distended with turbid fluid, and their walls extremely softened." A few calcareous plates were found in the spinal arachnoid, chiefly over the lower half posteriorly. A moderate amount of blood was effused into the subcutaneous tissue of the upper and inner part of the thigh. There was no sign of ruptured vessel. The femoral and other arteries were very atheromatous.

MANCHESTER ROYAL INFIRMARY.

RUPTURE OF THE SPONGY URETHRA; SUTURE; RECOVERY.

(Under the care of Mr. WRIGHT.)

THE notes of the following case were taken by Mr. Brazil, house-surgeon.

Peter A——, aged fifty-four, an unhealthy man, formerly a drinker, was admitted on Jan. 29th, 1887. Shortly before admission, while tipping a coal waggon, he was struck in the scrotum by the shaft prop. Soon after the accident he tried to pass urine, but found he was unable to do so, and that the scrotum swelled up.

On admission, the house-surgeon, Mr. Brazil, tried to pass a catheter, but, finding this impossible, Mr. Wright was sent for. On examination, there was a lacerated wound in the scrotum on the left side of the middle line. On passing a catheter along the penile urethra, it entered a large cavity, but could not be got into the bladder. The patient was anæsthetised, and it was then found that the catheter could be passed out through the scrotal wound; the scrotum and perineum were then laid freely open, and it was seen that the spongy urethra was torn completely across a little in front of the bulb, and the ends of the urethra were separated for a distance of from an inch to an inch and a half; the posterior extremity was recognised after a little searching, and a broad director was passed along it into the bladder. There was free oozing from the torn corpus spongiosum. Four catgut sutures were then passed through the divided ends of the urethra, and a No. 10 silver catheter passed from the penis into the bladder along the director, and the latter removed. It was then found that the two ends of the urethra readily stretched, and could be brought together without great tension. The sutures were tightened, and the parts came into good apposition, so that the catheter was not long exposed. The wound was left entirely open and the catheter tied in the bladder.

For the first two days the urine came partly through the catheter and partly through the wound, which was washed out with boracic lotion and dusted with iodoform. On Feb. 3rd the man's condition was very poor; he was feeble, apathetic, and constantly drowsy, and it was feared that his kidneys were too unsound to allow of repair of the injury. The catheter was removed for the first time on the 7th and replaced. For the next three weeks the wound slowly healed, and the man's condition caused much anxiety;

diaphoretics and a hot vapour bath, however, improved matters, and he gradually recovered. After the 15th the urine came entirely through the urethra, and the catheter, a No. 10 silver one, was readily passed, every day at first, and later every two or three days. No other bad symptoms appeared, and he was sent to the Convalescent Hospital. On March 2nd he was able to pass urine "as well as ever." The scrotal wound was nearly healed, and though he was weak his general condition was fairly good. About ten days later he left the Convalescent Hospital, a No. 12 catheter having been passed readily before he went home. On March 30th a 12-15 Lister passed easily.

Remarks by Mr. WRIGHT.—Complete rupture of the spongy urethra is of rare occurrence, and, so far as I know, primary suture has not been employed for it hitherto; it, however, seems to be the most rational treatment for such an accident, and in this case has had the best results. Had this not been done, it is probable that the wide separation between the ends of the urethra would have necessarily left the man with a permanent perineal fistula. For rupture of the membranous urethra, suture has already commended itself as a proper line of practice.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

Chronic Syphilitic Meningitis, causing Progressive Dementia.—Analysis of 93 Cases of Writers' Cramp and Impaired Writing Power, making, with 75 cases previously reported, a total of 168 cases.

AN ordinary meeting of this Society was held on Tuesday, Mr. G. D. Pollock, F.R.C.S., President, in the chair.

Dr. F. WARNER and Dr. FLETCHER BEACH communicated a case of Chronic Meningitis, probably Syphilitic and causing Progressive Dementia. The case was that of a boy aged seven, who came under the observation of Dr. Warner in January, 1879. While an infant he suffered from snuffles, thrush, and sores about the nates. He never had fits. As he grew up he became a strong boy and went to school, where he did his lessons fairly well. He continued bright and well until about eight or nine months before he was first seen. The first thing noticed was a certain difficulty in his movements, the boy at the same time complaining of headaches and crying for slight causes. The symptoms when first seen were then related, and the progress of the case given. He was under observation until September, 1880, when he was admitted into Darenth Asylum, under the care of Dr. Fletcher Beach. There he remained until his death in January, 1882. At the necropsy, twenty-seven hours after death, the dura mater was found adherent to, but easily separable from, a subjacent false membrane, which had evidently been formed for some time. It was attached here and there to the upper surface of the pia mater by thin membrane, and could be traced for a considerable distance along the floor of the skull. The family history showed that the maternal grandmother was epileptic, that the mother was liable to spectral illusions, and that the father had had syphilis. This interesting case, which had been watched carefully for three years, was clearly one of acquired imbecility, due to chronic meningitis, probably syphilitic in its origin, and is representative of many others, where, owing to the influence of heredity, indicated here by the history on the maternal side, the child is born with an unstable brain easily disturbed by any cause. Syphilis is not a common exciting cause of imbecility, but, according to Heubner, hereditary predisposition to nervous diseases appears to exert an influence in determining the syphilitic poison towards the nervous system. Finally, references were made to the connexion between syphilis and idiocy and imbecility. Photographs of the brain and of the membranes were exhibited.—Dr. ANGEL MONEY had made a post-mortem examination on a similar case in a syphilitic infant aged twenty months, in whom there was an extensive sanguiniferous thick false membrane covering the whole of the brain. He likened such cases to peri-splenitis and peri-hepatitis.—Dr. FRANCIS WARNER had observed progressive loss of mental function in two brothers unquestionably due to syphilis. In one case sudden left hemiplegia occurred. There was an arrest of growth in the bones of the affected side; probably syphilitic arteritis was the cause. He thought such cases of mental loss and epilepsy due to syphilis were not uncommon.—Dr. FLETCHER BEACH said that only three cases of undoubted syphilitic imbecility had occurred in 1600 cases at the Darenth Asylum.

Dr. G. V. POORE communicated a paper on an Analysis of 93 Cases of Writers' Cramp and Impaired Writing Power, making, with 75 cases previously reported, a total of 168 cases. This paper is in continuation of one published in the sixty-first volume of the Society's Transactions. The cases reported are given in the form of tables, as an appendix to the paper. They are arranged in three groups,—viz.: 1. Paralytic, 13 cases (10 cerebral). 2. Degenerative, 14 cases. 3. Neuro-muscular, 66 cases. The cases in groups 1 and 2 are nearly all referable to well-understood pathological conditions which affect the brain or spinal cord. The author is of opinion that a not uncommon cause of impaired writing power is to be found in lesions causing slight degrees of paresis of a hemiplegic type, and that the evidence of a slight, long-antecedent, and possibly forgotten hemiplegia may have almost disappeared, except in the execution of an act such as writing, which requires both delicacy and steadiness. Slight degrees of sclerosis affecting the different columns of the spinal cord may, in like manner, be scarcely noticeable except in the effect which they produce on the act of writing. Out of the total 168 cases of impaired writing power, about one fourth are referred to slight central changes in the brain or cord. The remaining 117 cases (66 in the present paper and 51 in the previous paper) cannot, with any sufficient reason, be referred to central change. They form a group which the author calls the *neuro-muscular* group. The objective symptoms of this group (in addition to the impaired writing power) are: 1. Nerve tenderness. 2. Change in the faradaic irritability of some of the muscles. 3. Tremors. These symptoms may occur singly or combined. Nerve tenderness occurred in 50 out of the 93 cases, and in most of these it was the median nerve which was tender. Change in muscular irritability occurred 61 times in the 93 cases. The change was generally a depression, and it occurred chiefly in those muscles which, in the act of writing, are subjected to prolonged contraction, such as the interossei, &c. Tremor occurred in more than half the cases. Many cases were complicated by slight rheumatic conditions of some of the joints. The pathological significance of altered muscular irritability and nerve tenderness is discussed, and it is shown that these conditions occur under such varied circumstances that alone they have little value in determining the nature of the pathological change or its seat. Both, however, may be induced by excessive muscular exertion, and the author continues to regard the depressed electric irritability as symptomatic of muscular fatigue, and is inclined to regard the nerve tenderness as also connected with over-exertion. In the treatment of cases of impaired writing power the first step clearly is diagnosis. For cases of the neuro-muscular group, blistering and other forms of counter-irritation applied to the tender nerve trunks have proved of marked value. Good results have also been obtained from massage and other methods of improving the nutrition of the affected limb.—Dr. C. Y. BISS thought greater prominence might have been given to the mental and physical states of the patient. He had heard of cases of writers' cramp being cured by massage in two or three weeks. The case of a highly nervous man was narrated in which it was shown how important it was to improve the general health of the nervous system. A massage of the whole body once a day and a favourable prognosis confidently expressed to the patient resulted in a cure in six weeks.—Dr. ANGEL MONEY said that in his experience infantile cerebral hemiplegia was very common, and, doubtless, some cases of impaired writing power were due to a long-past hemiplegia. Compensation and substitution allowed of great repair in children. Some cases of impairment in writing were probably due to impaired nutrition of the motor cortex, and others to defect of the spinal centres. This defect of nutrition would tell most on the terminations of the pyramidal fibres and on the endings of the nerves in muscles, for both sets of fibres had their nutrition controlled by the centres, and the nutrition of the fibres might be considered to be more difficult of establishment the further they were away from the source of nourishment and energisation.—Dr. GARROD alluded to impaired power of writing due

to the result of pressure on the nerves of the arm during sleep.—Dr. R. J. GODLEE referred to the rheumatic affections sometimes met with in these cases of impaired writing. In some cases of writers' cramp he had noticed a remarkable "clicking" in one or other joint.—Dr. POORE said, in reply, that the mental condition was notably of two kinds. In one the men were of extraordinary energy, and the energy was ahead of the staying power of the muscles and nerves. Great despair was the mental condition of others. Very often in ladies the loss of writing power was largely mental, but this was rare in men. All his work had been with a view to show where the loss of function is situated. Altered irritability and tenderness might be due to central or peripheral lesions, but the evidence was insufficient to say whether the one caused the other, or *vice versâ*. As to the joint conditions, perhaps gout played a share in the causation of some cases. Gouty masses and gouty grating in tendon sheaths Dr. Poore had observed, and also creaking of the shoulder-joint.—The PRESIDENT related cases which were clearly due to fatigue, and easily curable by simple rest and change of occupation.—Dr. POORE said that the writing might be impaired from a multitude of causes—e.g., "rheumatic" affections of nerves, and pressure on musculo-spiral or ulnar nerves. Cases due to fatigue and over-exertion were sometimes of the acute kind. Of these he had seen some, but most of the cases he dealt with in the paper were of the chronic order, lasting for months and years.

CLINICAL SOCIETY OF LONDON.

Three Cases illustrating the Difficulties in establishing Natural Respiration after Tracheotomy, and their treatment by Tracheal Catheterisation—Large Omental Lipoma successfully treated by Abdominal Section.—Abdominal Exploration for Chronic Intestinal Obstruction; relief of Symptoms by Artificial Anus; subsequent removal of a Growth involving the Splenic Flexure of the Colon; recovery.

AN ordinary meeting of this Society was held on the 22nd inst., Dr. W. H. Broadbent, President, in the chair.

Mr. BILTON POLLARD referred to three cases illustrating the difficulties in establishing Natural Respiration after Tracheotomy, and drew attention to their treatment by Tracheal Catheterism. The difficulty in getting rid of the tube after tracheotomy was by no means uncommon, and in two of the cases related it persisted after most determined and persevering attempts had been made for more than a year and a half by the usual methods. Two of the cases had been for a long time under the care of Mr. Godlee, and had passed into Mr. Pollard's hands when he succeeded Mr. Godlee at the North-Eastern Hospital for Children. The first case was a boy, aged two years and a half, on whom tracheotomy had been performed for laryngitis. For eight months frequent attempts were made to dispense with the tube. Mr. Godlee then catheterised the larynx without benefit. Five months and a half later a piece of india-rubber tubing was passed through the larynx from the mouth to the tracheotomy wound, and left in position for forty-eight hours, without any improvement in laryngeal respiration. The operation was repeated four months later without success. A year and seven months after the tracheotomy Mr. Pollard passed a tracheal catheter from the mouth through the glottis and into the trachea, beyond the tracheotomy opening. It was retained for thirty-one hours, and after its removal the patient continued to breathe through his mouth. The tracheotomy wound was firmly healed in a fortnight, and the child had been perfectly well for the six months that had passed since the operation. In the second case (a boy aged six) the windpipe had been opened for laryngitis. Three months after the operation, all attempts to get rid of the tube having failed, Mr. Pollard passed the tracheal catheter, and in doing so dislodged a piece of granulative tissue, which was coughed up. Pneumonia followed in this case, but the patient was nevertheless cured, and was discharged a fortnight after the operation. He remained perfectly well for the three months that had passed since the operation. In the third case (a boy aged four) the operation had been performed for impaction of a foreign body in the right bronchus. For seven months attempts were made to get rid of the tube. Mr. Godlee then removed granulative tissue from the trachea and catheterised the larynx. The latter procedure was frequently repeated during the next three months and a half. Two years and three months after the tracheotomy Mr. Pollard found the vocal cords adherent; he separated them, and, after dilating the glottis with Lister's sounds, passed the tracheal catheter, which was kept in position for thirty-eight hours. It was not until three weeks after this operation that the patient breathed through his mouth alone. The boy's voice returned, but after four weeks laryngeal respiration was so difficult, owing to the vocal cords having grown together again, that the trachea had to be reopened. The only difference between the plan Mr. Pollard followed and that which Mr. Godlee adopted was that, by keeping the tube in the trachea whilst the tracheotomy wound was allowed to close, the patients were left, on its removal, without the opportunity of making use of the passage which, from constant employment, had become for them the natural one. In the first and second cases the chief cause of obstruction was laryngeal spasm, but in the second there was also a growth of granulative tissue. In the third case there was a genuine stricture of the larynx, and the tracheal catheter served as a means of continuous dilatation; the result in this case showed that the dilatation should have been employed for a longer period. In two of the cases the tracheotomy incision had divided the cricoid cartilage, and Mr. Pollard suggested that this method of operating might be a cause of the difficulty of re-establishing laryngeal respiration in those cases.—Mr. HOWARD MARSH thought that in performing tracheotomy it should not be forgotten that the trachea was a canal, like the urethra, lined by delicate mucous membrane. Ulceration and granulation tissues were frequently developed under the influence of the mechanical irritation of the tracheotomy tube. The fenestra in the tube was often the offending point, and when situated posteriorly, and then a hernial-like protrusion of the posterior wall might become the seat of granulations. He advocated the use of tracheotomy tubes with movable necks, and with a round, not bivalve, body. The surgeon should have an assortment of tubes to fit different cases, for in some the neck was very shallow, in others very deep, and so forth. He doubted whether all the cases could be successfully treated as Mr. Pollard's, and related a case in which no lumen through the larynx, which was full of granulation tissue, could be detected on examination. Such a case was likely to prove hopeless under any method of treatment. The lapse of time was an important item in the cure of such cases, for cicatrisation might occur meanwhile, and the natural growth and enlargement of the respiratory passages would come into operation. He mentioned a case of stricture of the trachea from permanent contraction which occurred in a child, now a woman aged twenty-five, but without any recovery of breathing power.—Mr. C. H. GOLDING-BIRD considered that Mr. Marsh exaggerated a little the harm done by the fenestra in the tracheal tube. The permanent rough edge of the two-bladed tube was very deleterious. At the present time he had two cases under his care in which the children ceased to breathe on removal of the tube. In these the conditions were probably the same as those he had described in 1885. The edges of the tracheotomy wound were grown upon by granulation tissue. In one case a growth of granulations existed on the posterior surface of the trachea, and this was removed by Toynbee's ear forceps. He did not think the tube would account either for the absence or presence of granulations. A phlegmonous inflammation occurred in some cases, but he could not say whether this had any share in the causation of the granulations. In many the muscles of the larynx wanted treatment, and he thought that catheterisation, which he had practised for some years past, might act by rousing the muscles into proper action.—Mr. R. W. PARKER recognised two classes of cases: those with and those without mechanical obstruction; the former far outnumbered the latter. Treatment by catheterisation for the cases of mechanical difficulty would not always prove successful. Thickening of the mucous membrane of the pharynx and aryepiglottic folds was an important condition not sufficiently recognised. In the second case, he believed that the catheterisation proved dangerous by detaching granulations. In some patients the difficulty remained because the surgeon delayed too long the attempt to remove the tracheotomy tube. He agreed with Mr. Marsh that the tube should be fitted to the case, for the variety in size of the neck, trachea, and child was great. He believed that

treatment was not yet entirely successful. Reference was made to a case under his care in a child aged two years, who had scalded his glottis, but for whom little could be done at present, though doubtless time would prove of great service, as it had done, in his opinion, in Mr. Pollard's case, for the larynx remained small till about the age of twelve or thirteen, when an extra development occurred, especially in the male sex.—Mr. BILTON POLLARD, in reply, could not agree that the pneumonia was due to the trickling down of blood, but believed that it was due to collapse of the left lung, owing to the direction of the tube, which perhaps permitted air only to enter the right lung, for there were no breath sounds on the left side of the chest whilst the tube was in. The further progress of the third case was not altogether unsuccessful; many granulations about the vocal cords had by treatment developed into cicatricial tissue, there being a sufficient opening through the larynx to permit of breathing for as long as twenty-four hours, when the tracheal tube had to be replaced, apparently because mucus in the trachea became excessive, and the child had difficulty in coughing this up.

Mr. MERREDITH read notes of a case of large Omental Lipoma successfully removed by Abdominal Section. The patient, a woman aged sixty-two, was admitted under his care at the Samaritan Free Hospital in January, 1886, suffering from an abdominal tumour of over four years' standing. Some eighteen months before this she had been an inmate of another special hospital in London, where the abdomen had been opened in the belief that the tumour was ovarian, but had been reclosed on the discovery of the fatty nature of the growth. The patient returned home after recovering from this exploratory operation, but remained more or less constantly bedridden on account of the weight and size of the tumour, which steadily continued to increase. On her admission into the Samaritan Hospital, the abdomen, measuring forty-sixth inches in girth, contained an elastic but evidently solid tumour, which filled the entire cavity and overhung the pubes and groins, without invading the pelvis. The growth, viewed in the light of the former operation, was diagnosed as a lipoma of the omentum on the grounds of its comparative mobility and the absence of any intestinal resonance in front of the mass. The tumour was removed on Feb. 6th, 1886, by enucleation *en masse* from its omental capsule. No serious difficulty was encountered, and the abdomen was closed without drainage. The growth weighed fifteen pounds and a half; it was solid throughout, consisting of dense lobules of fat with a scanty amount of fibro-cellular tissue. The patient recovered well, and left the hospital on the twenty-fourth day after operation. She was seen in good health four months later, having gained flesh and strength. Examination revealed no evidence of further growth.

Mr. BERNARD PITTS read a case of Abdominal Exploration for Chronic Intestinal Obstruction, with relief of symptoms by the formation of an Artificial Anus and subsequent removal of Growth involving Splenic Flexure of Colon. The patient, Mrs. D——, came under observation in St. Thomas's Hospital, on August 21st, 1886. She was aged thirty-seven, and had enjoyed good health until Oct. 1885, when the first obstructive attack took place. For the six weeks prior to her admission she had had no satisfactory evacuation of the bowels, even after repeated enemas. She was a thin, pale woman, with distended abdomen, coils to be seen and felt, much peristaltic movement, and occasional vomiting; one large coil was especially marked, running across the abdomen from above downwards towards the left groin. On examination under an anæsthetic, no tumour could be felt, and the rectum was normal. On September 21st, the vomiting became continuous and offensive, and the patient was very exhausted; the vomiting was checked by morphia, but no action of the bowels could be obtained. In consultation with Mr. Edmunds, it was decided to explore the abdomen in the middle line, and this was done on Sept. 24th. The transverse colon was greatly distended and displaced downwards, and the descending colon was completely empty. The end of the transverse colon was attached to a small separate incision in the upper part of the left semilunaris, but the bowel was not opened till several days had elapsed, and the central wound had healed. The patient was in a very depressed state for the week following the opening of the colon. A very large quantity of fæces continuously passed, and she was apparently poisoned by the gases generated during the evacuation. Her breath had a strong fæcal odour; she was for days very drowsy, not recognising her husband, fractious, and suspicious of those around her. After getting rid of the very large fæcal collection she rapidly improved, and was able to get up on Nov. 5th; her weight was then 7 st. 4 lb.; weight before operation, 6 st. 10 lb. By introducing the finger into the colotomy opening, a movable mass about the size of a small orange could be felt under the ribs, evidently a malignant stricture at the splenic flexure. It was therefore decided to attempt the removal of the affected bowel. After careful preliminary treatment this secondary operation was performed on Nov. 22nd. An oblique incision was made on the left side below the ribs, about two inches above the colotomy opening, and by hauling on the collapsed descending colon the affected portion of the bowel was drawn out of the wound, and about four inches and a half excised; several small glands and some adherent omentum were also taken away. The two ends of the bowel were carefully united by silk sutures throughout their posterior and lateral aspects. The muscular coat of this united part of the bowel was then attached by numerous sutures to the abdominal opening, and the everted mucous membrane carefully stitched to the skin. The patient was then left in the condition of possessing a second colotomy opening, the first opening having contracted to the size of the little finger. The patient made a rapid recovery; the temperature remained normal; and on the tenth day she was able to get up. She left for home on Jan. 2nd, wearing a vulcanite tube, with the hope that fæces might pass into the lower bowel and the natural passage be restored. Mrs. D—— was now, five months after the removal of the growth, in perfect health, and able to do ordinary household work. Her weight was nine stone, or a gain of more than two stone since the relief of the obstruction; the bowels were open regularly every morning by the second colotomy opening, but there was complete control for the rest of the day. The specimen, a typical columnar epithelioma of the bowel, was shown and described. Mr. Pitts, in remarking on the case, gave his reasons for making the abdominal exploration, and quoted two other cases of stricture of the large bowel, in which he had made a preliminary abdominal exploration before opening the bowel at a selected position. By the exploration it was possible to gain definite information as to the cause and extent of the mischief, and this was of immense advantage when any further radical measure was contemplated. When no stricture was found in the rectum, he regarded a chance colotomy as an unsurgical procedure. In each of these cases the selected portion of the bowel had been attached to a separate opening in the abdominal wall for three reasons. 1st. It allows the exploration incision to heal by first intention, and as the second opening is exactly the size wanted, and as the bowel is stitched all round, there is no wound near the bowel opening to heal. 2nd. The bowel is not displaced from its natural position by being drawn up to the central wound. 3rd (and most important). It is of great advantage for after-examination to have the opening near the seat of mischief, so that an after-exploration with the finger may determine the character of the stricture and its relations. At the primary exploration, when the bowels are greatly distended, it is well to be content with a very limited examination, and on no account to attempt any removal of growth until all obstructive trouble has been relieved and the bowel has been thoroughly washed out. Mr. Pitts then gave his reasons for not restoring the complete continuity of the bowel at the time of the colotomy, and discussed the chances of successful after-restoration of the natural passage. The paper concluded with some remarks on prognosis and on the poisoning by absorption of gases that occurred during the evacuation of large fæcal collections.—Mr. MORRANT BAKER said that Mr. Pitts' course was exactly what should have been done. An attempt to close the artificial anus might be successful, as in a case of intestinal obstruction which was treated by an exploratory median incision, and in which he made an artificial anus. The man was relieved, but symptoms of septicæmic poisoning occurred after the escape of fæcal matter, similar to what happened in Mr. Pitts' case. The small intestine was opened in this case, the valvulæ conniventes being seen; and later on a prolapse of the bowel occurred, and in reducing this he resolved to carry out a plan of treatment which should attempt to close the anus, for the natural passages had again resumed their function. After incising the edge of the wound in the abdomen he stitched them together, and the wound healed almost throughout its entire length. Such success was as unexpected as it was agreeable.—Mr. A. E.

BARKER mentioned a case which illustrated and emphasised the views of Mr. B. Pitts. It was that of a man aged sixty-four, in whom long-continued obstruction, with enormous distension of the abdomen, led Mr. Barker to make an exploratory incision from the umbilicus to the pubes, when a cancerous growth was detected about the splenic flexure in the form of a large mass of hard growth complicated by nodules in the mesentery and parietal layer of the peritoneum. The wound was closed and the right iliac fossa was selected for aspiration, as the cæcum was much distended; this aspiration was repeated several times, with manifest relief, and adhesions formed between the cæcum and the parietes, which ultimately allowed him to stitch the cæcum to the incision made into it with a view to more permanent relief of the symptoms of obstruction. By this method of aspiration a large quantity of feculent matter—three to four pints—was removed, with the effect of relieving distress and causing the sallowness and mental symptoms to disappear. It is now six weeks since the complete opening was made, and the patient was very comfortable. He felt so satisfied that he should adopt the same practice rather than make an opening near the growth causing obstruction. He considered that the artificial anus should be as far away from a new wound as possible. He referred to a case of mental aberration that occurred in a woman after colotomy, which was also relieved by aspiration.—Dr. BROADBENT had observed the curious mental condition in cases of intestinal obstruction without there having been previous operation or any introduction of air into the canal.—Mr. BERNARD PITTS, in reply, said that Mr. Morrant Baker's case, ending in a rather unexpected closure of the artificial anus, could hardly be hoped for in his own case. It was found impossible, owing to the acuteness of the angle at which the intestines joined, either by means of indiarubber or vulcanite tubes, to get the fæces to pass from the upper into the lower part of the united bowel; so that he doubted whether closure of the artificial anus could be easily accomplished. He agreed with Mr. Barker's suggestion that the temporary withdrawal of feculent matter by means of the aspirator would materially help the surgeon to tide over the urgent period of the case. He would prefer that the new wound should be in the immediate neighbourhood of the growth, at least within a reasonable distance—say, from three to five inches.

The following living specimens were shown:—Mr. Victor Horsley: Three cases illustrating Brain Surgery. Mr. R. J. Godlee: Two cases of Abdominal Cyst following injury.

MEDICAL SOCIETY OF LONDON.

Blood Cyst of the Tongue.—Severe Injury of the Wrist-joint, with Division of Nerves, Vessels, and Tendons, treated by Conservative Surgery.—Excision of Nævoid Growth in Neck.—Ossified Epulis.

THE last clinical meeting of the session of this Society was held on Monday last, Dr. J. Hughlings-Jackson, F.R.S., President, in the chair.

Mr. BRUCE CLARKE showed a case of Blood Cyst of the Tongue in a young woman aged twenty-four. The growth was of nævoid aspect; it only began to grow two years ago, and yielded on one occasion serous fluid, and later on only blood, the cyst filling again in five minutes. He proposed to excise the cyst, and if necessary to remove a portion of the tongue. The cautery would probably control any hæmorrhage.—Mr. DAVIES-COLLEY said that blood cysts he had seen were either ordinary hæmatoma or degenerated nævi; he inclined to the latter view of the case shown. A simple plan of treatment would be the use of a ligature. He had successfully treated an extensive lingual nævus by ligatures without the least hæmorrhage.—Mr. F. BOWREMAN JESSETT agreed with the previous speaker; he had seen serious hæmorrhage in treating cases of the kind by ligatures.—Mr. J. H. MORGAN referred to a curious fluctuation in size of nævoid growths.—Mr. BRUCE CLARKE adhered to his own view, whilst admitting the possibility of a nævoid origin.

Mr. WILLIAM ROSE showed a case of Severe Compound Injury of the Wrist-joint. There was a transverse incision dividing all the structures down to the front of the wrist-joint, the median and ulnar nerves, the radial and ulnar arteries, the flexor tendons, and the pisiform bone. The joint was laid freely open. The tendons had retracted, and there was great difficulty in matching them thoroughly, though the nerves were easily found. Immense pains were taken to obtain accurate apposition—end to end union—of the nerve ends. A "tension-stitch" was first used, and then three or four sutures were employed to stitch the nerves together. The posterior interosseous arteries proved sufficient to allow of a flow of blood from the distal ends of the divided radial and ulnar arteries. The treatment was strictly antiseptic. The progress was satisfactory, the joint healing without suppuration. Sensation had returned almost completely. The movement of the wrist-joint was now fairly free. Within one day of the injury there was a return of sensation on the ulnar side of the second finger. He was disposed to break down adhesions under anæsthesia, and to relieve the nerves from their surrounding cicatricial tissues.—Mr. MARMADUKE SHEILD had seen an almost similar case, which he had read before the Cambridge and Huntingdon Branch of the British Medical Association. Primary union of the nerves took place. A glossy skin and bullous eruptions during the winter months were observed. Passive movement and massage were very useful in the treatment.—Mr. BRUCE CLARKE said that it took many months for sensation to return, and it might take more than a year. Careful galvanisation and massage would effect great good.—Dr. ANGEL MONEY referred to the asphyxiated condition met with in cases of peripheral neuritis.—Mr. BERNARD PITTS congratulated Mr. Rose on the result of his conservative surgery. He had treated several cases of injury about the wrist, and had met with some difficulty in "matching" the tendons. An immediate return of sensation might occur within a few hours.—Mr. DAVIES-COLLEY had had seven or eight cases of the kind under his care, though not so severe as in the case shown. He had incised the opening of the flexor sheaths with a view to better finding them. There was no necessity for cutting down on these nerves at present. The interossei did not seem to be wasted. Galvanism would probably prove useful.—Mr. ROSE, in reply, said he intended to employ systematic galvanisation. The improvement had not continued the last two months, and this made him suggest further surgical interference.

Mr. BOWREMAN JESSETT showed a case of Extensive Nævoid Growth, in a young man aged nineteen, situated in the neck about the left ear. At the age of four the growth began to enlarge distinctly. The left ear was greatly swollen and turned forwards by the growth behind. Mr. Jessett attempted to dissect out the whole of the nævus, being fully aware of the nature of the growth. This was found not to be practicable, but the greater part of the growth was removed, with a good result. There was some weakness of the left side of the face.—Mr. WALTER ROSE agreed that it was more scientific and surgical to freely expose the nævus and remove it, rather than to employ subcutaneous methods. Was the pulsation genuine, or merely communicated?—Mr. DAVIES-COLLEY said a large number of these nævi were best treated by excision. In the Guy's Hospital Reports he had described an almost bloodless method of excision. Hare-lip pins were passed crosswise through the base of the nævus, and compressed by means of a drainage-tube twisted round the pins. Pressure by a pad of boracic acid lint was very effectual in preventing bleeding.—Mr. BERNARD PITTS said that excision was very effectual in some cases in the grown-up, but in children the loss of blood and free dissection should be avoided. Nævi that have pulsation at some parts are not very amenable to electrolysis, which was, on the whole, the best method of treating nævi in children.—Mr. J. H. MORGAN had employed Mr. Davies-Colley's method successfully.—Mr. B. JESSETT, in reply, said the pulsation was communicated.

Mr. MARMADUKE SHEILD exhibited a case of Tumour of the Lower Jaw of six years' duration; it was either fibrous or osteoid. The mode of operation might be open to suggestions.—Mr. DAVIES-COLLEY thought it was an ossified fibrous epulis, and he would recommend the removal of part of the alveolar process beneath, in front, and behind the epulis.

ACADEMY OF MEDICINE IN IRELAND.

Resection of the Pylorus.—Œsophagotomy to remove a Foreign Body.

AT the meeting of the Surgical Section held on Feb. 18th, Mr. M'ARDLE read a paper on Resection of the Pylorus, and, as evidence of the importance of this operation, he showed that of 1342 cases of cancer of the stomach, the disease was

confined to the pylorus in 802, and of this number 496 were suitable for operation, as there was no implication of the neighbouring gland or adhesion to adjoining viscera. He then detailed a case in which he had removed the pylorus for cancer. The patient died of exhaustion four hours after the operation. He called attention to the result in 70 cases of pylorectomy which he collected: 62 were for cancer, with 35 deaths; 8 for simple stricture, with 3 deaths. The high mortality of the former depended on extensive adhesions delaying the operation. In reference to the question as to where these adhesions most frequently occur, Mr. M'Ardle showed that of 289 cases, the tumour adhered to the pancreas in 132, the omentum in 80, the transverse colon in 72, the liver in 4, and the small intestine in 1. He mentioned that those points of frequent attachment should be taken as landmarks in digital exploration of the pyloric region. The conditions under which he considered operation justifiable were—1. Irritable and intractable pyloric ulcer, leading to spasmodic stricture. 2. Simple fibrous stricture. 3. Circumscribed cancer, without adhesion to the pancreas or transverse colon.

Mr. BARTON read a paper entitled "Œsophagotomy for the Removal of Foreign Bodies." He referred to the removal of a foreign body impacted in the pharynx or œsophagus as a safe and justifiable operation in cases where removal through the mouth was difficult or impossible to effect. He spoke of the reasons which had probably combined to deter surgeons from performing it more frequently, and detailed the case of a child from whom he had removed by pharyngo-œsophagotomy the steel roller of a sewing machine, which had been embedded in the pharynx, opposite the cornu of the hyoid bone, for three months. The foreign body, which was larger in diameter than a sixpence, could be felt in the neck, and was safely and easily removed. The child made a good recovery, the greatest difficulty encountered being the feeding of the patient, which was troublesome, owing to the tendency of food to come through the wound, which did not heal for some time. This was overcome by feeding through a stomach-tube introduced through the wound. Mr. Barton called particular attention to this plan of alimentation, which he considered would prove of much value in the after-treatment of cases of this class.

An Outbreak of Diphtheria.—Notes on Cases of Insanity.

At the meeting of the Medical Section, held on Feb. 25th, Dr. MOUILLOT of Gorey read a short account of an outbreak of Diphtheria which occurred in the female school of the Gorey Workhouse. Eighteen children were affected, and there was a remarkable difference in the severity of the cases. In seven the appearance of the throat was that considered characteristic of diphtheria, and in three of these the local and constitutional symptoms were very severe. In ten cases there was no means of distinguishing the appearance of the tonsils and pharynx from ordinary tonsillitis. In one case the disease appeared to begin in the larynx. Out of the eighteen cases, three had laryngeal diphtheria, with two deaths; two cases were followed by diphtheritic paralysis, and sixteen had distinct enlargement of the cervical gland. Dr. Mouillot traced the disease to a foul smell arising from a choked drain immediately under the schoolroom and dormitory windows. He considered that even the mildest cases were really diphtheria—(1) because all were produced by the same cause, and at the same time; (2) because one of the least severe cases was followed by paralysis of the palate; (3) the cervical glands were enlarged; (4) the children with mild sore-throats were put in the same ward in the fever hospital with the certainly diphtheritic cases, and none of them caught a second attack, though the infectious nature of the disease was shown by a child in another ward, who was convalescent from typhus, catching it. Dr. Mouillot remarked that this outbreak went far to settle the question as to the possibility of diphtheria arising from foul drains, and also was a warning not to hastily decide that any case of inflammatory throat mischief was unimportant and non-contagious if it could be traced to foul drainage.

Mr. JOHN MOLONY read Clinical Notes of cases which he had grouped as fair types of "Fixed Delusions" occurring in various forms of mental disease, and cited in connexion therewith the opinions of Clouston, Spitzka, Savage, and Mickel. He also referred to the habit of alvine evacuation-eating in some forms of insanity, for the purpose of eliciting a discussion on the pythogenic origin of enteric fever, and gave a brief account of circumscribed outbreaks of abortive enteric fever occurring amongst agricultural labourers at "seed-time" employed in manuring, and as a contrast pointed to the apparent impunity with which some lunatics can devour decomposed fæcal matter.—Dr. FOOT suggested that the dirt-eating propensities indicated either what the evolutionists described as the doctrine of reversion, being the return to a degraded state, or that the insane found in it some nourishing food or substance which supplied a want. They showed discrimination by taking the excrement fresh without waiting for fermentation, which was conducive to typhoid.—The PRESIDENT said there were cases of definite monomania which did not last a year, and were curable partly by medical treatment and partly by moral influence before drifting into an asylum, where they were generally incurable. Opium was of great value in soothing the brain when threatened with functional disturbance; while care on the part of friends, and suitable change of scene, often prevented delusions from being stereotyped.

Dystocia caused by Hydrocephalus and Pelvic Tumour.

At the meeting of the Obstetrical Section held on March 4th, Dr. PUREFOY narrated a case of Dystocia caused by Hydrocephalus and Pelvic Tumour seen by him in consultation with Dr. Allen, in which the patient, a multipara, became profoundly prostrate from the suffering due to long-continued but ineffectual labours. The os was found largely dilated, encircling a large mass, which careful examination showed was a hydrocephalic fœtus; below this, posteriorly, was found an oval tumour, very movable and apparently pediculated; this was being driven down before the presenting part during each pain. With considerable difficulty this was pushed up and an opening made in the enormously distended scalp, giving exit to several pints of clear fluid. Even in this collapsed condition the head was so large that it was found necessary to complete delivery with the forceps. When dealing with tumours thus obstructing delivery, if there is reason to believe their contents are fluid, the relative advantages of tapping them through the vagina or through the rectum deserve our particular consideration.—Dr. ATTHILL said he thought the tumour and the hydrocephalic child were mere coincidences. Of course they increased the difficulty of labour, but not the danger of the case. The question was how to deal with a tumour which could not be pushed upwards. His experience was that it was wonderful how these tumours would get out of the way, and how little the patient suffered from their presence. He should have the greatest hesitation in tapping such tumours per vaginam; he thought such treatment extremely risky, because there was a danger of puncturing the vaginal wall.—Dr. LANE asked if the child in Dr. Purefoy's case was alive at the time of the operation. If it were dead, there would have been no difficulty about lessening the size of the head by puncturing it.—Dr. PUREFOY, in reply, said that as to whether the child was alive or not he expressed no opinion; but the likelihood of its being alive might be judged of from the facts that the woman had been for eight or nine hours in a state of horrible suffering before he saw her, and that the child's head contained nearly five pints of fluid. The probability that it was alive was not very great; and it was very unlikely that it would have survived aspiration.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

A MEETING was held on March 3rd, Dr. Cleaver, President, in the chair.

Hypertrophy of Heart.—Dr. MARTIN introduced a boy aged fifteen with enormous hypertrophy of heart. He had had rheumatic fever two years before. During the past two months he had suffered from continued fever. The area of heart dulness, extending from the upper border of the fourth rib, is four inches and a half in the vertical direction and from the right border of the sternum to a point three inches to the left of the nipple. Mitral stenotic murmur; no aortic. Pulse regular, but weak.

Injury of Popliteal Artery.—Mr. GARRARD read notes of three cases of injury to the popliteal artery, each ending in amputation of the thigh, at periods varying from ten days to thirteen months. First case: Subluxation of both knees; posterior crucial ligament torn off; left popliteal vein torn and artery stretched, rupturing inner coats. Dry gangrene com-

menced on ninth day; amputated on tenth; popliteal artery plugged with firm clot at seat of amputation. Second case: A man had a slight sprain of knee six weeks before. Went on working until a large swelling appeared in the ham. When first seen it was almost impossible to distinguish between abscess, aneurysm, and soft malignant growth, but was shown to be a small popliteal aneurysm the size of a walnut, which had been ruptured. There had never been any pulsation in the tumour. Amputated six weeks after the injury. The third case was a severe fracture and bruising of calf, wounding popliteal artery; a false aneurysm was formed and became consolidated, but the limb was useless, and was amputated thirteen months afterwards.

Hodgkin's Disease.—Dr. PORTER showed enlarged suprarenal capsules from a case of Hodgkin's disease. The patient, a woman aged fifty-one, had suffered from enlarged glands on both sides of the neck, the original enlargement, on the left side, occupying most of the posterior triangle. There was also a large mass of mesenteric glands forming an abdominal tumour, and smaller enlargements of the axillary and inguinal glands. The tumour on the left side of the neck had given rise to great pain from pressure up the side of the neck and face and down the left arm, and the external carotid and radial pulses were barely distinguishable. There was also œdema of the left hand, and the arm became ultimately quite useless. One symptom had been flushing and profuse perspirations, at first more or less limited to the left side of the face, due to pressure on the sympathetic. The patient died of gradual exhaustion. At the post-mortem the tumours were found to be entirely glandular. There was some enlargement of the right lobe of the liver and of the spleen, but no lymphoid nodules or bands apparent in either organ. The suprarenals were very large indeed. No enlargement of the intestinal solitary glands was found. Remarks were made by the President, Mr. Atkin, Dr. Keeling, and Messrs. Jackson and Garrard.

At the meeting on March 17th, Mr. SNELL introduced a young woman with Conical Cornea. In both eyes it involved chiefly the upper part, and in the left especially the cone was very unusually prominent.

Tumour in the Right Iliac Region.—Dr. MARTIN gave brief notes of a case of tumour in the right iliac region, in the neighbourhood of the ileo-cæcal valve, the subsequent course of which seemed to prove that the case was one of fæcal obstruction. Throughout, the bowels were fairly regular, and acted freely under the influence of aperients. It was a month before the tumour disappeared. The general appearance of the patient—a woman aged forty—was strongly suggestive of malignant disease, giving rise to considerable diagnostic difficulties.

Obstruction of the Bowels.—Dr. KEELING read a paper on "The question of Surgical Interference in Acute Obstruction of the Bowels," in which, after limiting the class of cases to which he wished to draw attention, an attempt was made to show: first, that by the use of the statistical method and the bedside observation of certain symptoms, it was possible to arrive at a tolerably exact diagnosis of the cause of obstruction; secondly, that this cause was frequently very similar to what is found in external strangulated hernias, and therefore, thirdly, that the obstruction could be effectually relieved, as in them, only by surgical methods.

At the meeting on March 31st Dr. HARGREAVES exhibited a Dilated Stomach (chronic) after pyloric constriction.

Mr. KILHAM showed two Surgical Kidneys; they contained several abscess cavities, and were from a patient aged seventy-five, the subject of stricture &c.

Mr. SNELL introduced a woman with small contracted pupils, Argyll-Robertson phenomena, optic atrophy, and symptoms pointing to locomotor ataxia.

Double Ophthalmoplegia.—Dr. W. R. THOMAS related a case of double ophthalmoplegia. On Aug. 17th the patient, aged forty-nine, became dizzy and fell, was unconscious for a short time, and when raised it was found that his sight was affected. When Dr. Thomas first saw him in December both eyes were very prominent from paralysis of ocular muscles. There was decided ptosis on both sides. The right eye was immovable, so also was the left; but on the left side there was a decided internal squint. The pupils were not affected by light or accommodation. Objects at a distance could be seen better than those near. Vision on the left side was much more indistinct than on the right. There was no history of syphilis, rheumatism, or cardiac disease, and no previous history of head symptoms. On the whole,, Dr. Thomas thought that, as the attack had come on so suddenly, it was due to hæmorrhage pressing upon the corpora quadrigemina on both sides of the floor of the third ventricle and parts around, and that this might be due to pre-existing disease which had not given rise to any evident head symptoms. The patient was improving.

Acute Dilatation of Stomach.—Dr. DYSON related this case. The patient, aged forty-one, was seven months pregnant. A miscarriage occurred thirty-six hours after the commencement of the illness; but beyond increasing the debility and collapse, this did not contribute to her death, which took place on the fourth day after the seizure. The immediate cause of the attack was a draught of cold milk, which was taken after severe exertion. This brought on acute gastric catarrh, accompanied by the vomiting of large quantities of bile-stained fluid and rapidly increasing distension. The physical signs were those set forth by Dr. Hilton Fagge. No post-mortem was obtained. The treatment consisted in giving nutrient and stimulating enemata, stomachic sedatives, bismuth, morphia, &c., and applying a small blister to the epigastrium. Most relief to the pain and vomiting was obtained by hypodermic injection of morphia. The patient was too feeble to admit of the use of the trocar or stomach-pump.—Messrs. Thorpe, Jackson, Baldwin, and Drs. Keeling, Hargreaves, and Martin took part in the discussion.

MANCHESTER PATHOLOGICAL SOCIETY.

AT the meeting on April 13th, the following specimens were shown:—

Malignant Endocarditis and Nephritis.—Dr. H. ASHBY showed the heart and kidneys of a girl aged thirteen years, who had suffered for several years with chronic mitral disease and rheumatism, acute or verrucous endocarditis supervening. A few weeks before her death she had an attack of subacute rheumatism, a diastolic basic bruit made its appearance in addition to the systolic, and the urine was loaded with albumen. At the post-mortem numerous irregular nodules of fibrin were present on the mitral valve and on the posterior wall of the left auricle, and also along the line of contact of the aortic valves. The kidneys were large and pale; microscopically they showed swollen and fatty epithelium, the tubes choked with blood and fibrinous casts. The glomeruli appeared swollen, but were otherwise unchanged. Many of the capillary vessels were choked with emboli consisting of micrococci. The spleen and liver were enlarged.

Cystic Disease of the Kidney.—Dr. H. ASHBY showed for Dr. Macalister the kidneys of a man aged thirty-four years, who had suffered for upwards of three years from epistaxis, hæmaturia, headache, and attacks of dyspnœa. Uræmic convulsions supervened before death. At the post-mortem there was a hypertrophied heart and recent pericarditis. The kidneys consisted of masses of cysts, numbering many hundreds, and varying in size from a pin's head to a marble, their contents were fluid or gelatinous, consisting of altered blood.

Intra-thoracic Tumour.—Dr. HUTTON exhibited a sarcoma involving all the thoracic organs, of a boy of eight years. There had been no symptoms or loss of health until within four or five months of his death, and urgent symptoms existed only for about eight weeks. The growth, arising in the glands, had infiltrated the pericardium, which was in places more than half an inch in thickness, and spread into the lungs deeply in a radiating manner along the bronchi and vessels. Microscopic sections showed it to consist of a felt work of coarse bundles of fibrous tissue containing lymphoid cells in its meshes, with here and there large masses of lymphoid tissue.

Preparation of Œsophagus from a recent case (the Oldham Poisoning Case) of Corrosive Poisoning.—Dr. T. HARRIS showed this œsophagus, which presented a corroded, charred patch, with absolutely black edges; the patch was circular in shape, an inch in diameter, and involved the mucous and submucous tissues. There could be no doubt as to the case being one of poisoning by some corrosive fluid, probably sulphuric acid.

Polypoid Growth of the Vulva.—Dr. BROOKE showed a drawing and sections of a molluscoid tumour of the vulva,

involving the clitoris and its folds, both labia majora, and the lower part of the fore-wall of the vagina. The patient, aged twenty-nine, had suffered badly from syphilis for the last eight years in spite of constant treatment. In June, 1885, a "vascular growth" was said to have been removed from the mouth of the meatus urinarius; this, however, recurred and developed into the present condition.

Mr. SOUTHAM and Dr. DRESCHFELD also showed preparations and sections.

Notices of Books.

Food Grains of India. By A. H. CHURCH, M.A.Oxon., F.C.S., F.I.C., Professor of Chemistry in the Royal Academy of Arts, London; sometime Professor of Chemistry in the Royal Agricultural College, Cirencester, &c. Published for the Committee of Council on Education by Chapman and Hall. 1886.—Professor Church, whose claim to attention none will dispute, tells us in his modest preface that his work has been founded on the material collected by the late Dr. Forbes Watson, who for many years worked in this direction. The new analyses contributed by Professor Church are marked by the letter C, but there are so many C's in the book, and many of them are of such interest and importance, that the author might well have claimed a larger share of the honour. The book, a thin quarto, is divided into five parts. Part I. is devoted to the constituents and uses of food. In this part we find clear though succinct descriptions of the carbohydrates, oils and fats, albuminoids, &c., present in all food grains. It was wise to include this description, and it was equally wise to make it short. We notice an unfortunate printer's error on page 5, where the formula for the glucoses is written $C_{12}H_6O_6$, instead of $C_6H_{12}O_6$. Part II. gives a short but very lucid account of the theory of dietaries, in which the heat value and nutrient value are well explained. We especially commend to our readers the figures and arguments on pages 13 and 14, which illustrate, and to some extent explain, the value of "flesh-formers" in muscular work. The curious experiment of Fick and Wislicenus, and the researches which followed from it, caused the real energy value of these compounds to be for a time as much under-rated as they had been before over-rated. The remaining three parts of the book describe respectively the chief cereals, buckwheat, and the allied orders, and the pulses. The seeds of the amaranths possess remarkable food value, the husked seeds of the Bengal amaranth (A. gangeticus) containing 14·5 per cent. of albuminoids and 6·3 of oil, with 2·6 of ash and 61·8 of starch. The high percentage of nitrogenous matter is accounted for by the enormous quantity of nitrates in the tissues of the plant. The dried stem of the well-known "love lies bleeding" will sometimes deflagrate when ignited, and nearly 15 per cent. of nitrates have been found. Throughout the book we find excellent botanical descriptions, and equally excellent illustrative plates. But the most important features are the large collection of original analyses, and the calculations of food value founded on them.

The Diagnosis and Treatment of Syphilis. By TOM ROBINSON, M.D., Physician to St. John's Hospital for Diseases of the Skin. London: J. and A. Churchill. 1886.—The title-page of this little book leads the reader to suppose that he will find the more difficult problems, both of diagnosis and treatment, which arise from time to time in connexion with syphilis carefully dealt with. Such was our expectation in taking up the book; we hoped for some additions to be made to the common stock of knowledge, and we have only to confess to disappointment. The book contains nothing of value that is not found in any good surgical text-book, not to speak of the many excellent works specially devoted to this subject. The history and phenomena of syphilis are dwelt upon with a very light hand, and the rules for treatment are simple—we had almost said crude. The following quotations will show the general style of the work: "I shall abolish the term 'hard chancre,' because its introduction implies that it has some relation to the soft chancre, and I shall use in its place the phrase 'initial lesion of syphilis.' All the symptoms which ensue after the initial lesion I shall include in the terms '*sequelæ of syphilis.*'" Dr. Robinson is physician to a skin hospital, so his views on the cutaneous manifestations of syphilis are especially interesting. Here is one of them: "Does a syphilitic eruption ever assume an eczematous type? Contrary to what we have been taught to believe, I should say—Yes, but only in those individuals who have a skin capable of becoming eczematous." We have only room for two of the therapeutic aphorisms: "I have never seen any reason why Aix-la-Chapelle or any other spa should have any special value in the course of syphilis." "Iodide of potassium to eat up syphilitic manifestations; mercury to prevent their recurrence." We can only add that the style is not improved by the writer changing about between the first person singular, the first person plural, and the third person singular. Such variety is not a literary charm.

De l'Intervention Chirurgicale dans les Affections du Rein. Par AZARIE BRODEUR, M.D. Paris, Ancien Interne en Médecine et en Chirurgie des Hôpitaux en Paris. Paris: G. Masson, 1886.—This is the largest work yet published on the Surgery of the Kidney, and it furnishes the result of an enormous amount of bibliographical labour. Dr. Brodeur has collected from all sources 327 cases of operations performed upon the kidney. The majority of these have been recorded in the medical press, but some of them are new, being taken from the private note-books of Paris surgeons. Not only has Dr. Brodeur collected these cases, but he gives an abstract of each of them. Such forms of statistics have obvious defects; for they show the mortality of the early operations of many surgeons, and of the operations undertaken before experience has clearly indicated the best course to be pursued in individual cases. When full allowance is made for this, however, they are useful, and the author has made up for this defect by the careful and useful abstract of each case he gives. These abstracts, all with full references to the source from which they are derived, will prove to be of very great service to others investigating this branch of surgery, and too much praise cannot be given him for the labour and pains he has taken to make this part of the work complete. The various renal operations are discussed under the heads of the diseases for which they have been undertaken. One fact which has impressed Dr. Brodeur in his study of the matter is the readiness with which nephrectomy has sometimes been resorted to. A study of the work before us will do much to prevent a too frequent practice of the operation.

A Practical Treatise on the Cure of Pulmonary Consumption. By JAMES WEAVER, M.D., L.R.C.P. London: J. & A. Churchill. 1887.—There is no subject in medicine that has been more the sport of credulity than that of the treatment of consumption. The frequent non-success of scientific medicine to arrest the downward progress of the disease has given rise to a host of alleged "cures." Any honest attempt, then, to establish a rational line of treatment is to be welcomed, and so far, in spite of its pretentious title, we are glad to receive the fruits of Dr. Weaver's experience as embodied in this *brochure*. It is, nevertheless, with a sense of disappointment that we find the actual evidence in support of his advocacy of iodide of potassium as the specific for phthisis to be so meagre; and before admitting his conclusions as to the efficacy of this drug we should like to feel persuaded of the share taken in the "cure" by the dietetic and hygienic management on which he equally and rightly lays stress. We are the more sceptical as to

the value of the iodide of potassium treatment because of the extremely vague notions which its advocate holds upon the pathology of phthisis. He talks loosely of the enlargement of the "tubercle millet-seed bodies" causing "congestion" and breaking down into cavities; he believes in the unity of phthisis, as well as in its being a "constitutional" disease and as being "contagious"; whilst his ideas of the relationship of the bacilli to the morbid process are so remarkable that we must give the passage entire:—"In pulmonary consumption we are able to demonstrate certain bacilli in the sputa, and although we are at present unable to state positively what the abnormal quality of the blood is which generates this condition of things, we know that this fluid is changed very considerably from that of perfect health, and that its red corpuscles are largely decreased, and that certain other constituents, such as fibrin and lime particles, are considerably increased. It has also been demonstrated that if a portion of blood from a phthisical patient be placed for an hour or two in a warm temperature, certain organisms similar to those expectorated in the sputa are generated and move about in the fluid so experimented upon—going, I think, a long way towards proving that these organisms are first formed in impure blood, and, acting in some peculiar manner on certain portions of lung tissue, cause the probably already deposited tubercular speck to grow and take on organic changes, producing, as already shown, actual consumption." (pp. 17 & 18.)

Traité Élémentaire de Pathologie Générale. Par H. HALLOPEAU. Deuxième édition. Paris: J. B. Baillière. 1887.—This work does not claim to be more than a fairly exhaustive review of a wide subject. In it are to be found the results of investigations carried on in all countries, and collated by M. Hallopeau with exemplary diligence. The subject matter is divided into five parts. The first treats of etiology, discussed under the heads of intrinsic and extrinsic causes, the latter including, of course, the subject of micro-organisms, which is treated with considerable fulness. The second part deals with morbid processes, commencing with inflammation and ending with tumours. The third part is concerned with symptoms, each system of organs being taken in turn. In the fourth part, the subject of disease as a whole is discussed, and in the fifth the general principles of therapeutics; but these are comparatively sketchy, and not equal in depth of treatment to the rest of the book. As a whole, the work is one which will be appreciated as giving a faithful account of present knowledge of the processes of disease; and to the student desirous of reading a French work we can heartily recommend it. The systematic method upon which it is planned, and the care which the author has expended on its revision, are worthy of commendation.

A New Clothing Case for the Soldier. By W. THORNTON PARKER, M.D., A.A. Surgeon, U.S. Army. Pp. 15. Newport, R.I.: Davis and Pitman. 1887.—This pamphlet is another attempt to solve the much-vexed question how a soldier on the march can best carry his service kit. Dr. Parker proposes to abolish the knapsack in use in the American Army and to substitute for it a case made of light canvas, rubber cloth, or waterproof cloth, divided into three equal pockets, and to be worn over the left shoulder. It is claimed for this that it will be lighter than the knapsack, and the weight be more equally distributed; but we are by no means sure that, in the summer especially, the soldier would not suffer more from the heat of this case, before and behind, than he would from the slight additional weight of the valise now in use in our service. The pressure of the case, also, on the front of the chest would probably be found to impede the respiration in the same manner, though not in so great a degree as the belts of the old knapsack, now happily abolished in the British Army. These are points, at least, which should be determined by careful experimental trials before any change is taken into consideration.

Causeries Scientifiques. Par HENRI DE PARVILLE. Paris: J. Rothschild.—This is a medium-sized volume, containing an account of recent discoveries and inventions, given in a pleasant, readable form, but of necessity much condensed. There is a mass of interesting material in the book, embracing a wide area. M. de Parville devotes some chapters to public hygiene, physiology, electricity, geological and meteorological discoveries, and other subjects too numerous to specify. Inoculation for cholera by Ferrán is discussed by the author at some length. He is of opinion that the judgment with regard to the efficacy of the treatment passed by the French Committee of Inquiry was too hasty. Although it appeared that Ferrán was unable to cultivate the cholera bacilli virus, there is still no reason, he considers, why the germ of truth contained in the idea of inoculation for this terrible disease should be disregarded. It remains for others to develop this theory, which M. de Parville thinks may be of importance to the human race. Several pages are devoted to hypnotism and other psychical experiments. Suggestion, M. de Parville remarks, would explain more than one miracle and many mysterious recoveries. As a popular or semi-popular yearbook of science this work may be regarded as a valuable little book.

Variations of Fortune. Illustrated by Sketches of some of the Old Towns of Italy and of those who influenced them. London: Sampson Low. 1886.—"Everyone," says Goethe, "finds in Rome exactly what he brings to it"; and from Rome the saw might have been extended to Italy. It is to furnish the English-speaking visitor to the antique and mediæval treasures of the Italian peninsula with some preparation for the better appreciation of what he sees that this portable little volume has been written. Already favourably known to the artistic world for her beautiful drawings of the "Seven Ages of Man" from the pavement of Siena Cathedral, the authoress has applied her draughtsmanship to the reproduction of some of the most characteristic scenes and figures of Italian history; and, in conjunction with the skilful letterpress that leads up to and explains them, she brings before the reader, in a vivid and memorable way, a series of most interesting events and achievements, making the realisation of them on the spot at once easy and delightful. Those of the profession who contemplate a holiday in Umbria or the Roman territory could not do better than take this little volume as their companion.

The Medical Annual. 1887. Bristol: John Wright and Co.—The publication of this work has been a little delayed owing to the unavoidable increase of matter and the number of pages found necessary to carry out the work efficiently. Its scope, however, has been so extended as to render it a complete work of reference on the modern treatment of disease. The Dose Index has been much enlarged, and the section "Books of the Year" has been extended by the addition of the more important American works published during 1886. The current volume is a distinct advance upon its predecessors, and can be unreservedly recommended to practitioners who desire a source of ready reference on questions of therapeutics, &c.

Street's Indian and Colonial Mercantile Directory. 1886-87. London: Street and Co.—In addition to the trade returns, tariffs, populations, &c, of the various colonies which are dealt with, this volume contains alphabetical lists of the leading professional men and merchants in the different towns, concise descriptions of each country and town, with the view of showing their commercial capabilities and peculiarities, and particulars of the various railways in operation or in course of construction. The amount of information contained in it is enormous, and the

work, which contains nineteen maps, will be appreciated by all who take an interest in and desire information respecting our colonies.

Analytical Records.

THE GERMAINS IMPROVED APPARATUS AND POWDER FOR DISINFECTING AND FUMIGATING.

(A. Z. GERMAINS, WINDSOR-ROAD, VICTORIA-PARK, LONDON.)

THE apparatus is a small metal hearth with a false bottom and side holes, to admit air. Over this is a hood with a side pipe near the top, by which fumes can escape. The powder contains sulphur, and burns easily. Mr. Germains has certainly contrived a convenient and safe method for sulphur fumigation, but every such contrivance is liable to be misused, and some of the statements made by the inventor are likely to lead to very dangerous misuse. Our readers know well that serious disinfection cannot be accomplished by the production in a room of a mere smell of sulphurous acid or any other chemical agent. To disinfect with sulphur one pound must be burned to every 1000 cubic feet, and the exposure must last many hours. Real disinfection by this machine in the presence of living creatures would be impossible; and when the inventor talks of the purification of churches he talks nonsense. Such a fumigation would have no real value, and would be dangerous as leading to a false sense of security.

MOUILLA, OR POTASH LIQUID SOAP.

(M. R. EDWARDES, ADAM-STREET, STRAND.)

This interesting soap is the invention of Dr. Duncan of St. Petersburg. We find by analysis that it is, as described, a potash soap containing glycerine, and scented with lemon. It is a clear solution, which mixes easily, and gives a lather with soft water. Opinions may differ as to whether potash is better than soda soap for ordinary use; but if potash soap is wanted it could not be obtained in a more convenient or elegant form. For medical purposes the soap is incorporated with small quantities of carbolic acid, Russian birch tar, and other substances. The carbolic soap, in particular, is a useful and valuable preparation.

BOKÖL: A NORWEGIAN PREPARATION OF MALT.

(DAVIS, BERGENDAHL, & CO., NEWCASTLE-ON-TYNE.)

This is a liquid alcoholic preparation which tastes like sweetened beer. It might, perhaps, be used with advantage instead of stout, but, as it possesses scarcely any diastasic power, we cannot recommend it as a substitute for malt extract.

KENTISH SAUCE.

(BURGOYNE & CO., PERCY-STREET, TOTTENHAM-COURT-ROAD.)

All that we need say of this sauce is that it is pleasant in flavour, and that our analysis shows that it is entirely free from poisonous metals.

LIQ. PODOPHYLLIN (HOCKIN).

(HOCKIN, WILSON, & CO., DUKE-STREET, MANCHESTER-SQUARE.)

This seems an excellent extract. It is faintly alkaline, mixes well with water, alcohol, dilute acids, and small quantities of alkaline carbonates, but is precipitated by alkaline hydrates.

VAN ABBOTT'S BEEF-TEA.

(G. VAN ABBOTT & SON, LONDON.)

This is a stiff jelly easily soluble in warm water. The solution contains no fat or albumen, and may therefore be boiled. In flavour it is excellent, and we have no hesitation in awarding it high praise.

RAPHAEL TANNIN WINE.

(E. GALLAIS, PICCADILLY.)

A full-coloured, luscious, and agreeable wine, faintly acid and remarkably astringent. The iron and gelatine tests show the presence of a considerable proportion of tannin. We think it will be useful in medical practice.

New Inventions.

SELF-FIXING ABSORBENT PADS.

MR. DE ST. DALMAS, of Leicester, has submitted to us one of his "self-fixing absorbent pads." It consists of a pad of absorbent wool enclosed in thin muslin, with four "tails" of St. Dalmas strapping affixed to it. The pads are

made of various sizes, and can of course be easily prepared impregnated with an antiseptic. The woodcut shows at a glance the mode of application.

AUTOMATIC PURIFYING CLOSET.

AN ingenious method of dealing with excreta has recently been patented by Messrs T. Goddard and Co., of Queen Victoria-street, which claims to be an improvement upon the earth-closet. The material used in substitution for earth is called "sanitary carbon," but there is no statement of the source from which this carbon is derived. Its action upon the excreta is that of an effectual deodorant, and it has the advantage of retaining the ammonia, thus producing a manure which must have some value. It is used in connexion with closets and commodes provided with lids which are charged with this material. On shutting down the lid a sufficient quantity of the carbon is scattered over the excreta in the pan beneath, rendering them entirely free from smell; and it is said that the amount of earth or ashes commonly required for this purpose is five times that of the carbon, the cost of the quantity of the latter material sufficient for each time of using being one-eighth of a penny. It is probable there will be some demand for the use of this deodorant in places where the water-carried system is impossible.

MEDICAL ATTENDANCE ON THE POOR.

To the Editors of THE LANCET.

SIRS,—I am obliged by your remarks, and the attention you have given to my pamphlet on Medical Attendance for the Sick Poor not Paupers; but I regret if I have at all led you to infer (and I appear to have done so by your closing remark) "that I said the object sought by Sir Spencer Wells' committee was only for the benefit of the poor and not the industrial classes." Now by the very title I gave my paper it was my desire and intention to show that it was in the hope of providing, as I particularly mentioned in my pamphlet, kind and efficient medical aid for this section of the general practitioner's patients that this committee was now sitting, and I think I specially implied this by mentioning that I advocated that the wage limit should in certain cases be extended (as to men with large families) even to £6 per week by paying 10*s.* per month when in health. What I did mention was that Sir Spencer Wells' committee was not organised for relieving any class who were well able to pay our usual fees, not for that upper stratum of the industrial classes "whose annual income very often was much larger than that of the average clerk, and even nearing a not small number of the professional classes." I am, Sirs, your obedient servant,

April 18th, 1887. FREDERICK H. ALDERSON.

THE LANCET.

LONDON: SATURDAY, APRIL 30, 1887.

THE American Public Health Association has made an important contribution to the subject of the danger attaching to rags as disseminators of disease. In a report of a Committee on the Disinfection of Rags, they have embodied a summary of the principal information available as to the possibility of the communication of disease by means of rags, and of the circumstances under which such communication takes place. In this country the two diseases which are most in question in connexion with rags are small-pox and cholera. As regards small-pox, it would be mere waste of time to make any endeavour to prove that the infection is conveyed in old clothing and rags, for the positive evidence on this point is overwhelming. So many outbreaks of small-pox have occurred amongst rag-sorters in paper-mills, that the only point of real importance which remains for discussion is how far this source of infection can be stayed. In an able letter appended to the report, Dr. STERNBERG, of the United States army, who has devoted much attention to the subject, evidently inclines to the view that since we have in vaccination an efficient means of protecting people, whether rag-sorters or not, against small-pox, it would not be justifiable to place any substantial hindrance in the way of a trade involving such large interests as that of paper-making from rags. But he holds that where a health officer has special reason for regarding any bale or consignment of rags as infected he should take the needed precautionary measures. In England even this limited action would be difficult of application, because, unless it can be shown that a definite consignment has actually been exposed to infection, the 126th section of the Public Health Act (1875) becomes practically useless. And even where such exposure can be proved, it is a difficult task effectually to disinfect a bale of rags unless a high-pressure steam apparatus is available. The alternative, indeed, would be the destruction of the bales, with compensation to the owner, under Section 121 of the Act, on the ground that the process had been carried out in the interests of public health.

Turning next to cholera, the report must be taken as setting at rest all doubt as to whether the infection of this disease can be communicated by means of clothing and rags. The number of cases cited in proof of such communication is so large that, even allowing for sources of error which might attach to some of them, there still remains a sufficient body of evidence to answer all reasonable purposes, and to justify the action which is adopted by our Government, and by most other European Governments—namely, the absolute prohibition to import rags from countries where cholera is prevailing. But the instances cited, taken along with the comments of Dr. STERNBERG, go to show that, after all, it is not so much rags, as such, that constitute the source of danger, as small parcels of clothing, over the transit of which our Cholera Orders in all probability exert no influence whatever. Rags, it appears, are gradually collected at the ports whence they are shipped; they are sorted, and put together in bales by local people, and yet it has been most difficult to show that cholera has been distributed through the agency of such establishments. And so slow is the system of accumulation at times that rag-vendors can allow their stores to increase until the prohibition is removed; and, after all, the very rags which it was sought to keep out of the country reach it at a somewhat later date. Here, however, comes in an important question. How long does the infection of cholera retain its vitality in rags and in similar cargoes? Probably for a limited period only, when compared with that for which the small-pox virus remains operative for mischief under similar circumstances. But even with these limitations to absolute certainty as regards the importation of the disease, we agree with the reporters that Governments have no alternative but to prohibit, during cholera epidemics, the importation of rags from ports neighbouring to the districts affected.

Dr. H. B. BAKER, the secretary to the State Board of Health of Michigan, is evidently inclined to suggest such wider action as would deal with rags imported from places where scarlet fever and diphtheria prevail. He begins by pointing out that the mortality occasioned by these diseases is vastly in excess of that from small-pox or cholera; and as regards the former, he says that whereas the small-pox deaths in the United States in 1880 numbered only 871, scarlet fever killed 16,416, and diphtheria 38,398. That the contagia of both these diseases can be communicated by means of rags, which are so largely made up of old clothing, admits of no doubt; although in the case of diphtheria the instances which go to prove it are by no means so numerous as in the case of scarlet fever. But with these diseases so rife as they are both in England and in the United States, and with infection spreading daily through our schools and other agencies, we think it would be most difficult to induce any Legislature to go beyond provisions such as are included in our Public Health Act and which limit preventive action, under such circumstances, to cases in which it can be shown that there has been actual exposure to infection.

Another alternative has been suggested as regards all the more dangerous contagia liable to be communicated through rags, and which, in addition to cholera, small-pox, scarlet fever, and diphtheria, include such affections as typhus, yellow fever, anthrax, and pleuro-pneumonia. It is that at all ports or at all paper-mills the rags should be disinfected. Both Dr. STERNBERG in America and Dr. PARSONS in this country have shown that, so far as the actual process of disinfection is concerned, this can be effected by steam-pressure disinfecting machines; but some of the paper manufacturers declare that the rags are injured by the process, and since vaccination is available against the contagium most commonly in question, it has never yet been regarded as practicable to impose the suggested restriction. In the meantime health officers should exercise the greatest vigilance in the case of the importation of rags, whether by sea or land; and, in the case of cholera, prohibitions to import must evidently be continued.

WHETHER regarded from a public health, or from a political point of view, the paper recently read by Mr. NOEL

A. HUMPHREYS before the Royal Statistical Society has served a useful purpose in calling attention to the wide variations between the mortality of different social classes.

The necessity for further and more accurate information on the subject is clearly shown, but our present knowledge warrants the conclusion that the future of health progress depends mainly upon the successful application of sanitary reform to the homes and manner of living of the working classes. How far it may be admissible to judge of the effect of class influences upon mortality in England from Dr. GRIMSHAW'S Dublin figures must remain a moot question until similar statistics are prepared for English populations. The fact, however, that the mean duration of life by ANSELL'S Upper Class Life Table is fifty-three years, instead of forty-four years by the most recent national life table, affords conclusive proof of a far wider difference existing between the rate of mortality of the upper and of the working classes. While, however, it is highly important that the excess of mortality in the artisan and labouring class should not be lost sight of, it is fully as necessary to remember the facts and figures set forth by Mr. HUMPHREYS to prove that high death-rates are not the inevitable and necessary fate of this class. In the absence of any trustworthy English working-class mortality statistics we are obliged to fall back upon the Registrar-General's Occupational Mortality Statistics, which certainly do not justify the sensational assertion of an evening contemporary, that the "work of the learned professions conduces to life, and that of the artisans to death." The near approach of the mortality of labourers in agricultural counties and of gardeners to that of the clergy, which between twenty-five years and sixty-five years is represented by 556, as against 1000 for the mortality of all males, was pointed out in the paper. It is necessary, however, to call attention to the fact that the relative mortality figure for lawyers is 842, and for medical practitioners 1122; and also to point out that below or between these figures come wheelwrights, 723; carpenters, 820; ironstone-miners, 834; coal-miners, 891; plasterers and whitewashers, 896; shoemakers, 921; bricklayers, masons, and builders, 969; blacksmiths, 973. The mortality figure for each of these groups of artisans is below that for all males, and very considerably lower than that for the medical profession, while the mean mortality of all the groups but slightly exceeds that of the legal profession. Whatever may be the explanation of these apparent anomalies, it is at any rate clear that the work of the medical profession can scarcely be said actually or relatively to conduce to long life. It is quite possible to believe that an artisan's life, with actually shorter hours of work and far less mental worry, may in a large proportion of cases be more conducive to longevity than that of the professional man. It is the general and unskilled labourers in towns who suffer most, and who from their numbers tend to raise the mortality of urban populations.

The most important political, social, and sanitary problem of the day now urgently calling for solution, is to devise means for preventing the accumulation of unskilled labourers in towns in sanitary condition and surroundings not only fatal to themselves, but a source of real danger to the physical, moral, and social health of the nation. There can be no doubt that the manner of living of the poorest classes in certain portions of most of our towns constitutes a source of danger to the public health, while we see its result upon themselves and their children in the statistics given in Mr. HUMPHREYS' paper. It is asserted by owners of house property and by sanitary authorities that they are helpless to control the home surroundings of these classes; but if landlords were held more distinctly responsible for the sanitary condition of their underlet tenements, such a pressure would be put upon the tenants as would teach them the necessity for decent living. In this way a civilising influence would be brought to bear forcibly upon the class, and the benefit to the public health would soon exercise an appreciable influence upon the death-rate. The effect of such pressure upon the mortality from zymotic disease may be estimated from the variations in the death-rates from these diseases in the various social classes derived from Dr. GRIMSHAW'S figures. We learn that in Dublin, after correction for variations of age distribution, measles mortality was during the three years 1881–83 nearly ten times as fatal in the general service class as in the professional and independent class; whooping-cough more than four times as fatal; scarlet fever more than twice as fatal; typhus nearly five times as fatal; and diarrhœa nearly three times as fatal. Experience points to the homes of the working classes as the usual generating ground of most of these zymotic diseases, from which the middle and upper classes derive the infection. With cleaner and healthier homes for the working classes, and with increasing difficulty put in the way of those who are now said to prefer unwholesome surroundings, it would be safe to calculate upon a further rapid decline of zymotic mortality in towns. It is beyond doubt that the decline of zymotic mortality in recent years has been one of the most potent factors in the reduction in the death-rate of children.

Notwithstanding this marked decline of child mortality, the strongest contrasts between the death-rates of different social classes are still found to prevail during the ages of infancy and childhood. Thus, it was pointed out by Mr. HUMPHREYS that the mean annual mortality under five years of age is just five times as great in the general service class (the class of general labourers below the artisan class) as in the professional and independent class; while at the next age period, five to twenty years, the difference between the mortality of these two classes is very nearly as great. It is true that the rates of mortality in adult life are more than twice as high in the general service as in the professional class, but it is fair to assume that some of this excess of mortality in adult life is rather due to the depreciating constitutional effect of insanitary surroundings and hardships in childhood, than to occupation and the other conditions of adult life. How far the conditions which lead to the terrible waste of life and health among the children of the poor are within control cannot be easily decided. When, however, due note is taken of the marked reduction of working-class mortality, especially among infants and children, in the Peabody and other improved dwellings, undeniable proof is supplied of at least one direction in which effective sanitary checks may be applied to the waste of child life, which we are too apt to regard as inevitable and beyond control. Is it necessary to urge the courageous application of this

form of control, without any cynical dread that decline in the death-rate will only lead to such an increase of population as will add to the social and political difficulties arising from over-population?

In conclusion, it is worth noting that the proportion of children in the several social classes is constantly in inverse ratio to the capacity of the several classes to support their children in a manner to favour their becoming, physically and morally, healthy members of society. It appears from Dr. GRIMSHAW'S classification of the Dublin population that 1000 of his professional and independent class contains only 75 children under five years of age, while the same number of the artisan class contains 121 children of those ages. It should be remembered, too, that these proportions under-state the relative proportion of children born in the artisan class, on account of the far higher death-rate among children in this class compared with that which prevails in the professional and independent class. Who can decide how much of the poverty and its attendant high death-rate and disease is due to the improvident and far too early marriages among the working classes? Let us hope that the recent decline in the national marriage-rate and birth-rate, which has been almost as marked as that of the death-rate, instead of being entirely due to commercial depression, may in part be attributed to a form of national prudence and thrift, which may not be without its effect upon the death-rate of children, and will certainly moderate the rate of increase of population, which, in some quarters, is viewed as a source of political danger.

BETTER explanation has long been needed of the circumstance that in every outbreak of disease due to infected milk some only of the milk drinkers have been attacked, while others, and that often a large proportion, have escaped. This unequal incidence of attack is doubtless due in part to a difference in the susceptibility of individuals, but this has long been seen to be insufficient to account for the facts observed. Quite recently Dr. KLEIN, in his report on the etiology of foot-and-mouth disease, commented on a "very puzzling" point which was observed in the feeding of certain sheep with the streptococcus of this malady—viz., that the process had to be repeated three times before one of them became infected; and he referred his readers to experiments made some years ago by Dr. BURDON SANDERSON and Mr. DUGUID, who found it necessary to rub hay steeped in the saliva of a diseased cow several times over the mucous membrane of the mouths of the animals which were the subjects of his experiments before the infecting process was complete.

Mr. W. H. POWER, in his report on the recent outbreak of diphtheria at Yorktown and Camberley, which the Local Government Board have just issued, has thrown considerable light on the conditions which affect the capability of milk to produce disease. It is necessary to refer briefly to the main facts contained in Mr. POWER'S report to enable his argument to be understood. The inquiry, it will be recollected, resulted from the desire of the inhabitants of the invaded locality to have further investigation of an outbreak which the local medical officer of health had attributed to infected milk—a conclusion which Mr. POWER fully confirms. The possibilities of drainage, water-supply, and deposits of river mud being concerned in its production were fully examined by Mr. Power and set aside, as well as all chance of articles of food other than milk being implicated. The evidence that milk was responsible for the occurrence is to be found in the fact that in a given area containing 176 houses, 94 of which received milk from the infected farm and 82 of which derived their supply from other sources, 48 of the former and but 9 of the latter were invaded by diphtheria or throat illness, and the inmates of some proportion of these 9 houses had either been exposed to infection from other cases of diphtheria, or had, away from home, consumed some of the suspected milk.

The chief interest in Mr. POWER'S story lies in what follows. The milk drinkers did not receive the same quantities of milk. There were, in fact, in this locality two classes, a rich and a poor; the former, who were supplied with larger quantities, suffering from threefold to fourfold as much as the latter, whose use of milk was limited to its consumption in tea. Mr. POWER shows that the number of opportunities for infection in one and the other class were practically forty in the richer to twenty in the poorer; but the difference observed in the incidence of the disease was even greater than could be explained by any consideration of the quantity consumed, and even amongst households alike receiving large quantities of milk there was an unequal incidence of diphtheria in accordance with the manner in which the milk was treated. In certain households it was the custom to "set" milk for cream, and the skim milk which thus came to be subsequently consumed was evidently responsible for an exceptionally large amount of diphtheria amongst its drinkers; cream itself did not appear to give rise to increased illness, for although families receiving cream direct from the dairy suffered heavily, they were, it is noted, those who consumed large quantities of milk, and they did not suffer more severely than other families, also large milk drinkers, who were not supplied with cream. One other point of interest is dwelt upon in the report: the quantity of milk consumed by individuals who were infected does not appear to have had any influence upon the severity of their disease when judged by the number of severe cases which occurred amongst the total number attacked, for two-thirds of the attacks among large consumers of the milk and one-half of the attacks among small consumers were severe—a difference, as Mr. POWER observes, not sufficient to connect intensity of attack with the amount of milk consumed.

The investigation failed to show the manner in which the milk acquired its infective property. There was no opportunity, as at Hendon, for comparing the relative infectiveness of milk from one cowshed and from another, for the milk of all the cows on the farm was intimately mixed before its distribution. That it was infective before leaving the farm is proved by the fact that it was distributed on four milk-walks, and each supply produced the same result. So, again, no explanation could be found for the circumstances under which cessation of infectiveness occurred, for the reason that nearly all the farmer's customers left him when the disease became prevalent.

The best use has undoubtedly been made of the opportunity for inquiry, and some lessons learnt which ought to be turned to practical account by those upon whom devolves

the duty of dealing with milk, both before and after it is supplied to a household. We fear it will be long before the necessity for boiling milk is generally recognised by those who are still unwilling to adopt this simple precaution; but the teachings of Mr. POWER'S report are worthy of serious consideration—that the amount of risk from drinking infected milk depends upon the manner in which it is treated after its entry into a house.

IT almost seems as if there was a slight abatement in the rush into the medical profession. Whether young men are deterred by fear of the examinations, which have been growing in stringency or of the increasing cost of medical education and examination, or by the prospect of poor pecuniary rewards, we cannot say. But there are some indications in the newly issued "Medical Students' Register" of more caution in entering on medical studies. This annual publication[1] of the Medical Council contains a good deal of interesting information. It gives the list of examining bodies whose examinations meet the requirements of the General Medical Council in Preliminary Education. Another list of great interest is that of the Places of Medical Study whereat students were registered in England, Scotland, and Ireland, and in India and the colonies respectively. On another page the regulations of the Medical Council are given for the examination and registration of medical students. Then there is the Register itself—for medical students have their register as well as medical practitioners.

The chief points of interest to us are the summary of the numbers commencing the study of medicine in each of the three divisions of the kingdom and the list of the chief seats of medical study. On page 12 is a table giving the number of students registered during each year from the commencement of students' registration in 1865 to the end of the year 1886. The number of students registered as commencing their studies last year was 1904—quite enough, it might be thought, to supply an annual waste by death of 600 or 700. As we know, there is a great falling off in these when the examinations are reached, and, roughly speaking, little more than two-thirds ever enter the profession. But what we notice is that if we compare the numbers registered as commencing study in the last five years with the numbers in the preceding five, there is an actual falling off. Of course from year to year the number fluctuates. But we find the number in the five years 1877 to 1881 to be 9669, or an annual average of, say, 1934; whereas, in the five years 1882 to 1886 the number was 9390, or an annual average of 1878. In the first quinquenniad the number exceeded 2000 in three years, the largest number being in 1881, 2171; whereas in none of the last five years did the number reach higher than 1957. There need, however, be no fear of an abundant supply to meet the waste of the profession; for the average mortality of the profession, though larger than it should be, is scarcely found to exceed for the last three years 600, whereas the average actual registration of practitioners on the Medical Register for the same years is 1373. This influx of double the number that are lost to the profession by death affords some explanation of the excessive competition which obtains in many parts, and leads to occasional breaches of those traditions as regards professional conduct which have long regulated medical men in their intercourse with each other, and in their bearing towards the public. An excess of over 700 a year may well lead those who think of entering the profession to pause. If they do so from the love of it, well and good; but those who wish for an easy road to fortune will do well to seek some other way.

The chief seats of medical study come out in the list of schools. The commencement of medical study by *pupilage* to a practitioner obtained in 177 cases—namely, 142 in England, 4 in Scotland, and 31 in Ireland. Besides these instances, many date the commencement of study from a provincial hospital. Of the 1908 students registered in 1886, 915 were registered in England, 626 in Scotland, and 367 in Ireland. The London schools scored 433 of the students, the Edinburgh University 280, and that of Glasgow 137.

A MISUNDERSTANDING, at which no one can wonder, has arisen between the two well-known engineers, Sir JOSEPH BAZALGETTE and Mr. BAILEY DENTON. Considering how diametrically opposed their views on sewage disposal have always been, it would be strange if they did not sometimes mis-read each other's words. Sir JOSEPH, in his evidence before the Select Committee of the House of Commons on the Pollution of the River Lea, advised that the sewage should be treated chemically as at Crossness, but with a considerably larger proportion of chemicals. As the sewage is to be discharged into the Thames at a point about one mile from the Barking outfall, and as therefore it is only the Thames that can be injured, it is certainly difficult to understand why the treatment considered sufficient for Crossness and Barking should not be sufficient for the Lea valley. In Sir JOSEPH'S opinion the more moderate system, which has been tried on a large scale and is about to be adopted at the great outfalls, is not only sufficient but "very satisfactory." He only advised the more expensive system, it appears, in deference to the opinions of others and to "conciliate opposition." Sir JOSEPH evidently thinks now, as he has always thought, that all this talk about river pollution and sewage disinfection is mere nonsense, that raw sewage does not pollute the Thames, and that Mr. DIBDEN'S valuable and carefully executed experiments at Crossness are quite unnecessary. He expressed his opinion that the chemicals used will soon be curtailed in quantity, and perhaps believes that they will before long be dispensed with altogether.

It is needless to say that we dissent entirely from the views to which the Metropolitan Board of Works has most unfortunately committed itself. The Board has done great and good work for London; and the drainage of the metropolis, accomplished by the skill of Sir JOSEPH BAZALGETTE, has been one of the greatest of its labours. But Londoners cannot cease to resent the injury done to their river, or the obstinate and persistent manner in which that injury has been defended. It is true that, tardily, reluctantly, and under compulsion, the Board is preparing at great cost to diminish the evil, but they do so with the worst grace and in the worst way. Their new works, executed in defiance of the unanimous advice of Lord BRAMWELL'S Commission, involve enormous expense, and cannot settle the question. We do not object to the works, which, as far as the limited

[1] To be had of Spottiswoode and Co., price 6d.

information afforded to the public enable us to judge, appear well designed, but we must once more object most strongly to their site. Everyone except the Board and its immediate supporters is convinced that the sewage of London can only be properly disposed of at a much greater distance from the City than at present. All the expense about to be incurred at the Barking and Crossness outfalls, including the steamers required to carry the sludge to the sea, will, we are certain, be found after a very short time to have been money wasted through mere blind obstinacy.

Annotations.

"Ne quid nimis."

NEW REGULATION OF THE EXAMINING BOARD OF ENGLAND.

AT a meeting of the Committee of Management of the Examining Board in England of the Royal Colleges of Physicians and Surgeons on the 25th inst., it was resolved: "That to enable students who commenced their professional education before Oct. 1st, 1884, to pass a qualifying examination for the purposes of registration, students who shall have completed four years of medical study to the satisfaction of the Committee of Management, and who shall have passed such first and second examinations as that Committee shall approve, may be admitted to the final examination of the Examining Board in England, which is a 'qualifying examination' for the purposes of registration under the new Act." Students desirous of taking advantage of this resolution of the Committee of Management must make application, in writing, to the secretary of the Examining Board in England, giving full particulars of any examinations passed by them at the two Colleges or elsewhere. This regulation is obviously of the greatest importance to students who have passed the first and second examinations under the old regulations at either of the two examining bodies.

THE SCOTTISH UNIVERSITIES AND REPRESENTATION IN THE GENERAL MEDICAL COUNCIL.

ONE of the warm questions in the Scotch Universities is that of the right to elect representatives in the General Medical Council. Hitherto the Senatus has assumed and exercised the power of electing the representative. But a powerful and somewhat pugnacious party exists now which claims the right and power of electing for the Council of the University. Our readers will remember that this subject was raised by Dr. McVail at the last meeting of the Medical Council, and that he challenged the validity of the election of the Scotch University representatives returned by the Senatus of their Universities. The question has been raised in the Council of the University of Edinburgh, on a motion by Mr. Vary Campbell reflecting on the Senatus for illegal action, and asking for a clause in the University Bill to secure the right of election for the Council. Sir William Turner warmly resented the censure of the Senatus, and insisted that any alteration of the law should be in the shape of an amendment of the Medical Acts, rather than in the University Bill. He carried an amendment asking that the consideration of the interpretation of the Acts bearing on the question be referred to the University Court. Whatever may be the truth in this dispute, we caution reformers against expecting any speedy relief from a reform of the Medical Acts. Statesmen have had enough of Medical Acts lately, and have ended in a very poor legal achievement; they will not, therefore, be likely to meddle with the subject again in a hurry.

RELATIONS BETWEEN THE THYROID AND CEREBRAL CIRCULATION.

THE impetus which the description of the condition known as myxœdema has given to the study of the thyroid gland has received an additional illustration in a note by Professor Waldeyer (*Berl. Klin. Woch.*, No. 14), calling attention to the arterial supply of that organ and its apparent relation to that of the brain. He points out that Stahel recently showed that the superior thyroid artery bore in the degree of its development a constant relation to the "bulbus caroticus internus" (Krause), whereby the amount of blood transmitted through in the internal carotid in its winding course along an osseous channel could be regulated. Now the vertebral artery, in its course to the base of the brain, has a somewhat analogous disposition, both as regards tortuosity and relation to bone, as the carotid, and it is justifiable to infer that a similar relation to the above obtains between the inferior thyroid and the vertebral. This idea implies that the thyroid body can act as a sort of reservoir for blood, protecting the carotids and vertebrals from too great an influx. The great vascular supply of the thyroid is remarkable; in proportion to its size, it receives large arteries and has a plexus of veins which are in close connexion with the great venous trunks. The capillaries of the thyroid are also peculiarly disposed for the rapid removal of blood. Comparative anatomy lends support to the doctrine, the general fact being that in most mammals the brain is chiefly nourished by the internal carotid, and that in these animals both superior and inferior thyroid arteries arise from the common carotid trunk. Professor Waldeyer disputes the statement that the thyroid is exceptionally rich in lymphoid tissue, and refers its abundant nerve-supply to the large number of bloodvessels it contains.

THE STUDY AND TRAINING OF CHILDREN.

IT may appear to some superfluous that we should speak of the great importance of systematic training for young children. A matter of this kind must, we admit, be fairly understood by a great many responsible persons in the present age of the world's history. It is likewise very evident that, if we interfere too much with a process so natural as that of development, the artificial product will hardly realise all that we expect to find in adult manhood. We would strongly deprecate any interference which has this tendency. What is wanted is a plan or plans of school and household discipline which will be regulated, not merely by the maxims of past practice, but by an understanding of the signs of aptitude in children, and a knowledge of their physical, mental, and moral requirements, which cannot but vary with the advance of time and the growth of human experience. It has been sufficiently demonstrated, for example, that our ordinary methods of school education are not perfect, that the rapid cramming system is no more adapted to mind-culture than inordinate feeding accords with good digestion, and must therefore give place to a more deliberate process of instruction. Children must be studied as types and as individuals if we would train them and shape their future course aright. Such a study does not entail any elaborate investigation, and it is one which will repay parents and teachers by the success of its results when applied in practice. In this connexion we may draw attention to a series of six lectures, now being delivered by Dr. Francis Warner at the request of the Froebel Society, on "The Children: How to Study them."

THE PROPOSED NEW CHARTER OF THE ROYAL COLLEGE OF SURGEONS.

AT a meeting of the committee of the Association of Fellows of the Royal College of Surgeons of England held on April 23rd the following resolutions were passed and ordered to be sent to the Council of the College:—(1) "That the President and the Council of the Royal College of Surgeons be requested to convene a general meeting of Fellows and Members to consider and discuss the proposed draft Charter about to be presented to the Privy Council." (2) "That the Council of the College be requested to sanction the issue of copies of the proposed new Charter to those Fellows and Members who may apply for them." The committee also approved a letter to be sent to the Lord President of the Privy Council begging that the proposed Charter shall not be approved until the Association of Fellows has had an opportunity, by means of a deputation, of stating and explaining its defects.

FLOATING SPLEEN OR KIDNEY (?)

THE diagnostic difficulty that is sometimes encountered in respect to abdominal tumours in the left hypochondrium is well illustrated by an interesting case reported by Dr. Shattuck, of Boston. The case had been related by him in 1878 as one of "floating spleen." The patient was a young man of eighteen, who complained of severe pain in the above region after a sprain received in lifting a barrel, where examination detected a mobile tumour, which was agreed to be splenic rather than renal. Dr. Shattuck now (*Boston Med. and Surg. Journal*) comes forward to state that he was mistaken. Last year the patient was admitted into hospital with cancer of the skull, vertebral column, and ribs, leading to paraplegia from myelitis, and to cystitis and pyelonephritis. The abdominal tumour had remained unchanged. At the necropsy, besides the malignant disease, which also involved the liver and the left kidney, the spleen was found almost in its normal position, and was of usual size. The left kidney, however, was represented by a three-lobed mass of the size of two closed fists, and was provided with a mesonephron, which made it freely movable. It was in great part destroyed by malignant growth. It is an interesting point as to whether the fact of the organ being misplaced had anything to do with its becoming the seat of malignant disease. The patient had been liable to recurrent attacks of hæmaturia for five years before death, which may have been due to temporary strangulation of the ureter.

DRINKING-WATER AND DISEASE.

MR. WILLIAM P. MASON, of the Reusselaer Polytechnic Institute, Troy, N.Y., has contributed to the *Chemical News* an interesting observation on the production of disease by water polluted by normal sewage. About two months ago a family in Albany were, within a few hours, struck down with symptoms varying "from intense nausea to great, if not dangerous, prostration." It is unfortunate that the record of these symptoms is not a little more detailed. They lasted in the worst cases for over a month. On examination, it was found that the cistern which supplied the house had received most serious pollution from the private sewer of the house. When analysed, it was found to contain in grains per gallon—free ammonia, 1·05; albuminoid ammonia, 0·196; and chlorine, 3·22; with traces only of nitrates. Every single member of the household, which appears to have been a large one, and to have included several children who were on a short visit, was attacked, with the exception of one lady, the only person who had not drunk the water. Nothing apparently could be clearer than the evidence, which so far is very similar to much with which we are familiar. But now comes the real point of the story. "Up to the time of the outbreak none of the household had suffered from diarrhœa or kindred troubles, nor could I obtain any history of recent disease of any kind." Of course, as Mr. Mason points out, the sewage, although apparently not old, need not have been quite recent. It seems probable enough that sewage matters in a certain stage of putrescence, and swarming with bacteria, may become acutely poisonous, as meat is known to do under certain conditions. The general lesson is evident. We must not assume that a polluted water is safe because no pathological conditions can be proved to exist in the polluting matter.

THE TOXTETH PARK POISONING CASE.

THE adjourned inquiry into the above case was resumed on April 15th before Mr. Brighouse, county coroner. The deceased, Mary Jane Hamilton, aged eleven years, a child of weak intellect, "died somewhat suddenly after a violent illness." She had for several years been subject to fits. It was proved in evidence that her brother had brought home some sulphate of copper and sulphate of iron for the purpose of making experiments, and it was suggested that deceased had accidentally swallowed some of the mineral salts which had been dropped on the floor. The symptoms which for three or four days preceded death were mainly vomiting and retching, "stiffening of the hands" and "turning in of the feet." Dr. Shaw, who treated the deceased on one occasion during her last sufferings, made a partial post-mortem examination, and found what he believed to be a ragged perforation of the stomach, the result of the action of some irritant poison, and acting on this belief he gave a certificate, but declined to state the cause of death. Subsequently an official necropsy was performed by Dr. Rentoul, by order of the coroner. He discovered some green fluid in the abdominal cavity, and a perforation in the walls of the stomach, but whether this was caused by poison, or by the use of the knife at the former examination, he was not able to determine. The stomach and intestines were "more or less inflamed." From these reports it is absolutely impossible to draw a positive conclusion as to the nature of the perforation of the stomach. No mention is made, in the newspaper accounts of the case, of the facts by means of which one would endeavour to form a differential diagnosis between perforation (1) by incision, (2) by a corrosive agent, and (3) from post-mortem digestion. We lay no stress one way or the other on the absence of corrosion of the œsophagus, because if the sulphate of copper were swallowed in the solid form we should scarcely expect to find marked lesion of the gullet. A chemical analysis of the vomit, of the contents of the stomach, and of the fluid found in the abdominal cavity would certainly have given valuable information, and was indeed imperatively called for, but for some reason unknown to us no such analysis was performed. From the information before us, we can but consider the investigation was singularly faulty, and fully warranted the jury in returning an open verdict. Such a conclusion of the inquiry is to be regretted, especially as the means to render the latter complete were ready to hand. Unfortunately, too, there seems to have been a good deal of misunderstanding between the coroner, the medical men engaged in the case, and the police. Without going into these details, we may safely lay down one or two rules for the future guidance of practitioners called upon to investigate cases similar to that now under discussion. In the first place, we hold that whenever a medical man suspects that death is not due to natural causes, or even when he has no grounds for forming an opinion, he would act wisely in communicating with the coroner, and so shifting the responsibility upon the person the law designs should bear it. Further, a *partial* post-mortem examination is to be deprecated under any circumstances, and doubly so where the death is not

free from suspicion of "violence." Clearly, too, whenever a post-mortem examination is made by an independent person, the doctor who had charge of the patient should be informed of the fact, and given the opportunity of being present. The coroner for Central Middlesex invariably encloses with his order for the necropsy an intimation to this effect addressed to every medical man concerned in the inquiry.

THIRIAR ON VARICOCELE.

DR. THIRIAR of Brussels, in a clinical lecture on the Surgical Treatment of Varicocele, after mentioning that numerous methods of operation were in former times proposed and practised—such as castration, the section of the vas deferens, and the ligature of the arteries of the cord, which necessarily interfere with the functional activity of the testis,—spoke of the modern or therapeutic method as consisting essentially in the arrest of the circulation in the venous plexuses surrounding the vas deferens. Until quite recently, however, so many accidents—some of them fatal—followed operative procedures of this kind that many surgeons objected to resort to them for an affection which, however trying to the patient, cannot be considered as dangerous to life. Since the adoption of antiseptics the danger of these operations has been reduced almost to *nil*. The operation practised by Dr. Thiriar is the combination (proposed by Guyon) of Sir A. Cooper's plan of excising the skin with the old method of excising the varicose veins themselves; Heurteloup's plan of excising a flap of skin from the posterior surface of the scrotum he does not approve of, following Guyon and other surgeons in believing that the varicose condition is usually in the anterior plexus. His plan is as follows. An elliptical flap of skin is excised from the front of the scrotum and the bundle of veins dissected out and tied in two places, the intermediate portion being excised if the tumour is considerable. The dissecting out of the veins is a somewhat difficult matter, as there are several fibro-cellular layers to divide or tear through; the artery has to be carefully separated from the veins, a proceeding which up to the present time Dr. Thiriar has not found attended with difficulty. The wound is washed with a corrosive sublimate solution, and the lips united by a continuous suture, which is the form Dr. Thiriar prefers as a rule; antiseptic dressings and compress bandages are applied, and in a few days the patient is discharged permanently cured.

DISPOSAL OF REFUSE.

"Dust and Ashes: How to Deal with them," was the subject of an interesting lecture given last week by Mr. Alfred Fryer at the Parkes Museum of Hygiene, in which the lecturer discussed the most economical and effectual way of getting rid of the contents of ashpits. His argument that the use of fire for this purpose was an absolute necessity was well supported by those who took part in the discussion, and he adduced considerable evidence to show that this method could be adopted in large centres of population, quoting among other places Whitechapel, where there is a destructor which belongs to the vestry of that district, and Lett's Wharf, near Waterloo-bridge, where the Corporation of the City of London have erected a similar furnace. He referred to the alarm which had been created by a recent proposal to construct a furnace at Kensington, and to the unfortunate decision of the House of Commons in rejecting the Kensington Bill on its third reading—a Bill which, by the way, we recently inadvertently stated had passed this stage. This decision is the more to be regretted seeing that Londoners have now ample opportunity for correcting any erroneous impressions as to the amount of nuisance which the destructor creates, but evidently the work of education must progress further before the method of destruction by fire is generally accepted. The Council of the Parkes Museum have therefore done well in inviting Mr. Fryer to relate his own experience of the working of the destructor in other towns where it has been in use for many years.

THE PURIFICATION OF WATER.

IT has long been known that water may be clarified by the formation in it of a precipitate which, as it falls, will carry down mechanically the lighter, and of course the more dangerous, portion of the suspended matters, which otherwise are very slow in separating. In Clark's well-known process for softening water a sufficient quantity of lime to combine with the free carbonic acid is mixed with the water. The precipitate of carbonate of lime—if we may still use the familiar old name for the calcium carbonate of modern chemists—carries down with it all suspended matters, including bacteria, and the water remains not only softer but very much purer. Carbonate of soda is an even more powerful precipitant, as it removes permanent as well as temporary hardness. In either case the deposition is, however, somewhat slow, and to avoid the use of depositing tanks a filter press was used in the Porter-Clark process, which was shown in action at the Health Exhibition. An American contemporary, the *Boston Medical and Surgical Journal*, reports that Prof. Dobroslavine of St. Petersburg advises as a good precipitating agent a solution of perchloride of iron followed by a solution of carbonate of soda. Simple and devoid of inherent novelty as the suggestion is, it is very sensible. Translated into English weights and measures, the quantities used are about three grains of perchloride of iron and four grains of soda crystals per gallon of water. The precipitate is said to settle in about forty-five minutes and to leave the water perfectly clear. The quantity of carbonate of soda is not sufficient for the complete decomposition of the iron salt, but would convert it into a heavy, insoluble, basic chloride, which would doubtless settle easily. So simple an experiment is well worth trying. It is noteworthy that by slightly increasing the quantity of carbonate of soda the water could be softened. We have often wondered that the softening of water for domestic uses is not more frequently practised in private houses. The addition of a very small quantity of carbonate of soda to the water in a cistern will remove even excessive hardness in a few hours at an almost inappreciable cost. If the cisterns are used in pairs the white deposit from one may from time to time be removed by flushing with water while the other is in use. The troublesome furring of boilers and hot-water apparatus might in this way be avoided.

THE JUGULAR HUM.

THE unreliability of the well-known "bruit de diable," or jugular hum, as a sign of anæmia, which was pointed out by Weil, whose objections have been disputed by Guttmann, has been again proved by Dr. Reinhold Apetz (Virchow's *Archiv*, Bd. 107, Hft. 3) upon the results of the auscultation of 660 individuals, of whom 115 were anæmic, 161 "barely" anæmic, and 384 "not anæmic." The murmur was detected in the proportion of 51 per cent. of the first class, 46 per cent. of the second, and 39 per cent. of the third. Without following the writer through his analysis, which corresponds fairly closely with the similar observations of Weil, it may be interesting to cite the conclusions at which he arrives. These are to the effect—1st. That venous murmurs detected in the internal jugular vein under all circumstances depend in the first place upon the age of the affected individual, the murmurs becoming less frequent with advancing age. 2nd. That venous murmurs detected by turning the head to the other side are of no value in the diagnosis of anæmia, but have

only a physiological importance. 3rd. That some pathological importance specially belongs to the true murmurs detectable when the head is kept straight in the upright position, when they occur loud and continuous in individuals at middle age (twenty to sixty years); yet they are generally too insignificant to be of value in the diagnosis of anæmia. 4th. Under no conditions does the venous murmur have any special diagnostic value for chlorosis and other anæmic states.

STOPPAGE OF WATER-SUPPLY FOR NON-PAYMENT.

THERE can be no question as to the serious inconvenience occasioned in a household by the stoppage of its water-supply. A frequent result of continued cold weather, and an occasional but not infrequent consequence of non-payment of dues, it is at any time a source of much annoyance, and, what is more important, of a train of diseases which are bred and fostered by uncleanliness. We need not dwell on the connexion between sewer air and infectious fevers, on the absolute necessity of water, under our present system, for the removal of excreta, and for flushing freely and fully all waste-pipes, on its utility for cooking purposes, and its natural place as a beverage. All these are matters of common information. It is well to note, however, that the consequences of a want of water are not necessarily limited to the house which is primarily affected by it. If, for example, the sewage arrangements of that house be thrown out of working order, those of neighbouring buildings are not unlikely to become indirectly involved. Thus, one focus of disease readily becomes a parent of others. It is with a view to the prevention of such risks as these that certain members of the House of Commons have brought forward a proposal that water companies should be restrained in future from cutting off the water-supply of any house in default of payment of the water-rate, and should be allowed as compensation a preferential claim on the revenue derivable from the said house. The plan, as drafted on paper, seems as if it would work well, though perhaps it might be objected on behalf of the companies that it does not cover a number of cases where houses are let to a very poor class of tenants, whose payment of rent or of any dues whatever is a very precarious possibility. It may well be doubted, however, if their present power of stopping the supply is of much use to the companies in such cases. In so far as it is wont to be applied, the local authorities might perhaps be induced to meet them in the public interest on the question of payment, in order to prevent its application. At all events, the proposal to which we have referred is one worthy of consideration, and if it can be effectively carried out will do something to limit the spread of disease.

ARTIFICIAL AND HYPER-ALIMENTATION IN PHTHISIS.

IN an account of the effects of artificial and hyper-alimentation, as practised in Professor Pel's wards in Amsterdam, Dr. van Eeden states that the meat powder treatment introduced by Débove (which he had had an opportunity of studying in Paris) is always of service in phthisis when the disease is not very far advanced, and when it is not of a "malignant" nature. The cases which do best under this treatment are those in which there is no hereditary taint and where the disease has progressed regularly, with a not very rapid loss of strength, and with only slight hectic, anorexia, anæmia, and emaciation. The chances of successful treatment are slight where the disease has made rapid progress, with a continuous high temperature. The existence of a considerable degree of pyrexia is, however, no contra-indication to the use of the treatment. If diarrhœa and gastric irritation are produced by the artificial alimentation, it is best to discontinue it. In order to accustom the stomach to the meat powder, small quantities only should be given at first—not more than about half a pound during the twenty-four hours; this amount may gradually be increased to one pound and a half. The use of the œsophageal sound for the introduction of the food is considered by Dr. van Eeden as advisable in all cases, and imperatively necessary in hyper-alimentation. Quantities exceeding three pounds of meat powder per diem, however, are not by any means always required, and should only be given when smaller amounts do not succeed, and where the patient bears the treatment well. The method must be diligently and patiently practised, and the weight of the patient accurately noted. Dr. van Eeden remarks that so little is known of the way in which hyper-alimentation controls the development of tubercle, that whoever attempts to practise Débove's treatment must be prepared to meet with many difficulties and disappointments. Notwithstanding this, however, he has witnessed some surprisingly good results from its employment.

EXPLOSIVE SODA-WATER BOTTLES.

THE yearly increasing consumption of temperance drinks, particularly of aerated waters, is on the whole a matter for congratulation. It is also a fact which renders the more necessary some precaution lest the greater demand should itself entail certain public disadvantages which might with some forethought be avoided. With regard to cost, for instance, recent experience has shown that there is in many quarters a tendency to unjustifiable extortion in the retail sale of these very simple drinks. A warning of a different kind has lately been communicated through the daily press with reference to the imperfect filling of soda-water bottles. A fault of this description is little, if at all, less blameworthy than that to which we have already referred. It is necessary for the safe use of aerated waters that the water itself should be in a due proportion to the gas which it is intended to absorb. If it is not, the excess of gas may cause, and repeatedly has caused, an explosion, sometimes with serious consequences. How far in such cases of accident the result was due to some flaw in the bottles themselves is doubtful. The one apparent fact is an excess of the charge of gas. It is easy to understand how in a warm atmosphere this would suffice to cause an explosion, and it is as necessary as it would be profitable to makers that sufficient care should be taken in the preparation of these beverages to minimise the chances of accident in the future.

THE DUSTMAN AND THE WIND.

DURING the late high winds and the general dryness of everything, many Londoners must have suffered from that absurd and dangerous pest of the metropolis, the present system of dust removal. Turning a corner the other day, in the teeth of a strong east wind, we were confronted suddenly with the grim apparition—cart, ladder, basket, and all. Flight was impossible. We had barely time to shut our eyes and mouth when what appeared to be about half the savoury contents of the basket deluged us. The cart was already over-full, and in another moment a foul simoom of dirt was careering down the street. Could anything be more disgusting or more dangerous? Who can tell that infectious disease was not present in the very house from which the last basket was carried? Why do Londoners tolerate the nuisance? There are many known ways of disposing of house refuse; but we are convinced that the very worst, the most stupid and dangerous, is that which seems to be immortal in London—the open cart and the rotten basket.

DR. BALFOUR, F.R.S., HONORARY PHYSICIAN TO THE QUEEN.

WE were extremely gratified at a late announcement in the *Gazette* to the effect that Surgeon-General Balfour, M.D., F.R.S., late of the Army Medical Department, had been appointed one of the Honorary Physicians to Her Majesty. Dr. Balfour is a man of deservedly high scientific reputation; he is, in addition to this, a Fellow of the Royal Society, and a Vice-President of the Statistical Society of London. He was Secretary to Lord Herbert's Commission after the Crimean War, and did excellent and original work as head of the Statistical Branch of the War Office; in fact, he organised that branch, and laid down the lines of our military statistics on a better basis even than they are at present. Dr. Balfour has the reputation of having been an excellent administrator, and, as principal medical officer at Netley and Gibraltar, he was most popular and successful.

GASEOUS RECTAL MEDICATION.

THE remarks on gaseous rectal injections by Dr. Burney Yeo which appeared in THE LANCET on the 16th inst. will serve to give more prominence and emphasis to a method of treatment which may have "something in it," but which cannot be said to have yet had a fair trial at the hands of English practitioners. At the same time, it is hardly correct to say that the method has been met with derision, if not contempt, for it has been systematically, though not extensively, practised by Dr. Heron at the Victoria Park Chest Hospital, and it is now some time since Sir Andrew Clark invited a number of medical *confrères* to a demonstration of the apparatus employed in the method by M. Bardet. Further, American physicians appear to have taken it up, and apparently with considerable success. With Dr. Burney Yeo, who appears to us in this matter to adopt the attitude most in accord with true therapeutic science, we do not think it necessary to suppose that the sulphuretted or other gas must act after the fashion of a true germicide or antiseptic; using the latter term in its widest sense, as Dr. Yeo would probably employ it. If we admit that the methods of rectal gaseous medication are antiseptic in their action, it does not necessarily follow that the antiseptic agent acts in a germicidal fashion on the causes of septicity, or that the gas neutralises the effects or products of the action of the germs; for it may be that the value of the treatment, supposing it to have any, consists in improving the nutritive powers of the tissues, in increasing their vitality, thereby rendering them more able to cope with deleterious influences, or with the germs, by affording an unsuitable soil for the activity of the latter. It is not, however, with the mode of action and scientific *rationale* of gaseous rectal medication that we are now principally concerned; what we would urge is a more extended trial of the method for which so much has been claimed in France and America. Already the evidence is forthcoming that the treatment has been followed by many signs of improvement in at least some of the patients, and perhaps chiefly in those whose affections are not of an altogether irremediable nature, such as local affections of the pulmonary tissues and various forms of chronic bronchitis; whilst the rapid forms of phthisis and other acute febrile pulmonary processes do not seem to be benefited by this treatment, which, though it may be tolerated by the system, is certainly not always borne with equanimity by the patient. It is clear that the day has not yet arrived when rapid phthisical processes may be surely arrested by therapeutic and hygienic art. This much must be said, because a notion has been getting abroad through statements circulated in the lay press that rectal injections are certainly curative of consumption. It does not seem to be sufficiently appreciated by the public that cases of genuine consumption are being, have been, and doubtless will be cured by the resources already at the command of the profession. To say that all consumption is curable is to make as untrue a statement as to say that all consumption is incurable. Some cases are amenable to treatment; the bulk, perhaps, are not. To be able to say that the universal affirmative proposition is true is a consummation devoutly to be wished, and it is in this spirit of hope that we would recommend a fair trial of the new method of treatment, the details of which are carefully described by Dr. Yeo in the lecture to which we have referred.

ATTENDANCE BY UNQUALIFIED ASSISTANTS AT CHEAP DISPENSARIES.

A BAD case in point is reported in the *Newcastle Daily Chronicle*—that of John Potter, aged thirty-one, who suffered from pain in his side and a severe cough. The father of the patient sent for "Dr. Hardy of Shields-street, Shieldfield." The person who attended was not Mr. Hardy, but his unqualified assistant, who told the father that his son's heart was much affected. Dr. Arnison was called in the day before death, and pronounced the case one of double pneumonia. When the patient died they went to Mr. Hardy's for a certificate. He had never seen the case, but filled up a certificate, saying that he had attended the case and seen it on April 20th, and that the cause of death, to the best of his belief, was acute nephritis. The coroner reflected severely on Mr. Hardy's action in certifying in a case which he had not seen, and in which the diagnosis of his unqualified assistant seemed to have been as much at variance with the fact as the statements in the certificate. The coroner intimated that he would refer the facts to the Registrar-General. He very properly said that the rectification of such irregularities should not rest with the medical profession. It concerns the public and the Registrar-General. We hope the Registrar-General will investigate the facts, and, if necessary, refer them to the Medical Council.

MOORISH PRISONS.

AN agitation has been raised, chiefly through the instrumentality of Mr. Jose Perdicaris, a wealthy and philanthropic American gentleman residing at Tangier, concerning the brutal treatment of Moors imprisoned for debt. Financial, and to some slight extent political, questions are involved in this movement, and with these, of course, we are not concerned; but we are free and anxious to join in the general protest made against the barbarity prevailing in Moorish prisons. The new consul representing the United States of America recently fitted out an expedition which went to the towns of Alkazar and Laraiche to release seventeen individuals imprisoned on so-called American claims, and they found that no less than three out of this number had died in prison. A correspondent, who has had opportunities of visiting each of these prisons, testifies that the only wonder is that such pest-houses do not prove even more fatal. The stench arising from the want of closet accommodation is simply appalling. Overcrowding is constantly allowed, and when fever breaks out, no precaution whatever is taken to prevent the disease spreading. The prisoners for the most part are covered only by a few dirty and torn rags swarming with vermin. They are also generally put in irons, and no food is provided. The prisoners are allowed, but not compelled, to work at making cords and fancy baskets, which they try to sell, to enable them to buy bread. But this resource is so slender that, unless the prisoner has food brought to him by his friends or relatives outside, he runs every risk of dying of starvation. Several cases of this kind are known to have occurred, and the prisoners were not criminals, but untried

debtors. Now, so far as American *protégés* are concerned, the movement, successfully conducted by Mr. Perdicaris, assisted by Captain Rolleston, has resulted in the liberation of the prisoners and the abolition of protection. Henceforth men will no longer be incarcerated at the bidding of an American *protégé* who avails himself of his privileged position to refuse his debtor the right of trial. The trade of the usurer will thus become more difficult. But, while applauding the abolition of such abuses, we venture to go a step further. We make bold to claim, even for the hardened criminal, a more humane treatment. There are thirteen foreign legations at Tangier. The Sultan of Morocco knows that he has no army, no material means of resisting the demands of any civilised power. If he has held his own so long, it is not his own strength but the jealousies of the rival powers which have saved Morocco from sharing the fate of Algeria or of Tunis. Nevertheless, these various diplomatic agents might agree to unanimously demand reforms in the condition of the Moorish prisons. This is no political question; it does not affect the delimitation of the frontiers. The rights advocated are the abstract rights of humanity to humane treatment, combined with the necessity of preserving the public health. Moorish gaols are centres of epidemic disease; they are a standing menace, not only to the lives of the prisoners, but to the health of the free men who live without their walls. These latter comprise, in such a town as Tangier, a considerable number of Europeans. Tangier also is becoming yearly a more popular health resort, therefore the foreign diplomatic corps could easily find good reasons to interfere on behalf of the Moorish prisoners and obtain some sanitary improvements in the condition and management of the gaols.

SUDAMINA IN TYPHOID.

THE occurrence of sudamina is fairly common in typhoid fever. Murchison observed them in about one-third of his cases, but attributed no special significance to them. M. Baradat de Lacaze (*Rev. de Méd.*, April, 1887) discusses the subject in some detail, especially from the point of view of prognosis. He concludes that the appearance of such eruptions (sudamina or miliaria) after the third week in a severe case is of favourable omen, and that within a day or two the temperature will fall. But the same meaning does not attach to the like eruptions that appear in some cases before this time—e.g., in the second week. Prognosis in typhoid fever is admittedly very uncertain, and any sound facts to guide in forming it must be received with attention. In addition to these critical eruptions connected with the sweat glands, the writer cites M. Chauffard's opinion that the occurrence of multiple abscesses and of polyuria is also an indication of a favourable termination of the disease.

CONSUMPTION IN AUSTRALIA.

A CORRESPONDENT writes to us from Sydney (New South Wales):—"The propriety of sending consumptive patients to the Australian colonies is a question which the medical profession in England must necessarily take great interest in. I therefore venture to enclose an article from the Melbourne *Age* of March 3rd bearing upon the subject. I am not a medical man, but from my experience of the climate here and in Victoria, especially near the coast, I should say there is not a more treacherous country in the world. It is most common for the thermometer to show variations in the temperature within a couple of hours of from 40° to 50°." The article from the *Age* deals with the proposed consumption hospital for Melbourne, and points out the urgent need for it, owing to the rapid increase of the disease in the colony of Victoria. The above facts are already well known to us. Consumption is common in Australia, and is increasing with rapid strides. The idea that the Australian climate is in general either a sure prophylactic or a certain cure for the disease is a common but baseless error. It is, in point of fact, an unpardonable looseness of speech to deal with the climate of Australia as a definite and invariable entity. There are many climates in Australia—coast, mountain, plain, and desert; and some of them, especially the coast climate—to which, unhappily, for obvious reasons the consumptive too commonly resorts,—are most injurious in chest affections. On the other hand, the reputation won by Australia in the treatment of consumption is not a myth or a mistake. Many parts of the interior have an admirable climate—dry, bright, sunny, exhilarating, and fairly equable; the chief drawback being the hot summer. The other seasons are delightful, and the consumptive who goes inland to one of the sheep "stations," and lives the primitive out-door life which there prevails, stands a good chance of recovery, or at least of a great prolongation of life.

TONSILLITIS AND DIPHTHERIA.

IN a paper on Follicular Amygdalitis (*Medical Record*, Nov. 1886) Dr. A. Jacobi points out that this term is misleading, inasmuch as it covers a variety of conditions—catarrhal, purulent, fibrinous, and diphtheritic; and that the last-named form especially is liable to be mistaken for the other non-contagious varieties. The catarrhal and the diphtheritic are the most frequent. Acute catarrh of the tonsil is not unilateral when produced by cold, and is accompanied by the universal hyperæmia of the larynx. "Whenever there is an acute attack of *unilateral amygdalitis*, the latter *is the result of either trauma or infection*," is the dictum which he proffers. The distinction between the catarrhal and diphtheritic forms of follicular tonsillitis rest mainly in the character of the membranous deposit in the latter form, the small patches of whitish or whitish-grey colour being very adherent, and sometimes becoming confluent. Albuminuria is not necessarily present in the diphtheritic form, and it occurs in the catarrhal when there is high fever. Nor is fever a necessary concomitant of the infectious variety; its occurrence depends rather upon the extension of the morbid process to deeper parts. The whole tenor of Dr. Jacobi's paper is to deny the assertion of Fraenkel that "angina lacunaris" is a perfectly distinct disease from diphtheria, but that many cases of the former are examples of mild diphtheria, capable of transmitting the disease by infection, and therefore to be guarded with as rigid precautions as the well-marked cases of diphtheritic infection.

SANITARY PROGRESS AT LEEK.

IN his last annual report on the sanitary condition of the town of Leek in Staffordshire, Mr. J. J. Ritchie, the medical officer of health, draws attention to some interesting points in connexion with the results of the sanitary progress which has been made. Thus, the statistics compiled show that for the years 1881 to 1885 the mean expectation of after-life from birth of persons in Leek was twenty-two years more than would have been the case had things remained as they were during 1851-60, before any attempt was made to grapple with the unhealthy conditions of the town. Mr. Chadwick, C.B., having made inquiry as to what was the money value to the community during the twenty-five years 1861-85 of the important increase in longevity and freedom from sickness which had been brought about, the following particulars showing the saving effected were collected for him: Maintenance of sick (including medical and other attendance at 5*s.* per week) amounted to £35,560; money saved on productive labour (10*s.* per week for males and 5*s.* per week for females), £25,784; money saved on cost of funerals, at £5 each, £10,320; total money saved, £89,464, which sum is equal to a direct saving of

£3586 per year. It was further shown that during the same period the deposits in the Savings Bank had increased twentyfold, and the capital of the Friendly Societies threefold; that the receipts in the Leek and Moorland Building Society had risen from £8421 in 1861 to £54,858 in 1885, and those of the Leek United Building Society from £905 in 1863 to £29,898 in 1885; and these sums, it is believed, have been materially influenced by the state of things above referred to. Incidentally, it may be added that the freedom of the town from fatal infectious diseases has been largely brought about by the almost immediate isolation which is secured in the sanitary hospital which has been provided and has been long in use.

MICROBES AND SUPPURATION.

A. ZUCKERMANN (*Centralbl. f. Bacteriologie u. Parasitenkunde*, No. 17) relates his experiments upon suppuration, which have led him to these conclusions: That no chemical, mechanical, or thermic influences can excite suppuration if they are wholly free from microbes; and in cases where these causes apparently act it is probably through some pyogenic microbe. For substances chemically pure may be mycotically impure; thus some disinfectants are not always free from microbes. The varieties of microbe known to cause suppuration are staphylococcus pyogenes aureus, albus, and citreus; streptococcus pyogenes; and in fætid abecesses, bacillus pyogenes fœtidus. Inoculations with staphylococcus and streptococcus produce fatal results if injected in large amount into animals, or lead to suppuration if death do not occur. The pyogenic microbes must have a very general distribution in nature; they may enter the body through the air-passages, the intestinal canal, and especially the skin, and by means of small wounds or the orifices of the cutaneous glands. Staphylococcus is more frequent han the streptococcus pyogenes.

VACCINATION OFFICERS' ASSOCIATION.

WE note with pleasure the continued development of the Association of Vaccination Officers, which has just published its third annual report. Subjects of much interest have been discussed during the year, and a paper by Dr. Cory has been issued. There are probably no officers who can derive more benefit from combination than those engaged in the enforcement of the Vaccination Acts. Their duties are of a nature to require considerable information, and every officer must frequently feel the necessity for consultation with his fellows. Ample opportunity for this purpose is given by the Society, and it would be well if the fullest advantage were taken of it by all. The work of the vaccination officer is of great importance to the public, and everything which tends to create efficiency in its performance deserves sympathy and encouragement.

THE SHARP SPOON IN ABORTION.

DR. A. R. FISHER, assistant in Professor Slavianski's clinic in St. Petersburg, relates, in the March number of the *Russian Obstetrical and Gynæcological Journal*, his experience of an operative procedure recommended by Boeters, Mundé, and Fehling in cases of abortion, where the embryo is not expelled naturally. The patient is placed on the back, the knees being separated by assistants. Anæsthesia is not required. The vagina is well washed out with a disinfecting solution, and then the cavity of the uterus is similarly irrigated by means of a double-current catheter, which is passed after the cervix has been drawn down with forceps. A sharp spoon is then introduced into the os uteri, which it is not necessary to dilate with tents, and the cervical canal scraped out, after which the instrument is made to sweep round the entire cavity of the uterus, scraping off the deciduous mucous membrane close to the muscular layer. When this is reached a peculiar grating feeling is experienced, which is very characteristic, and which serves to denote that the scraping has been carried far enough. If the contents of the uterus are considerable in quantity, the operation is broken off two or three times for disinfectant irrigations through the double-current catheter. At all events, the uterus is well washed out with an antiseptic liquid at the conclusion of the operation. An iodoformized plug is then inserted into the vagina, and a good dose of ergot given. The results of this operation are stated to have been most satisfactory, but the author does not recommend it in cases which have been left too long to themselves, where more or less putrefaction must have taken place. Nine cases are reported, in only one of which was any unfavourable complication observed; this was a slight amount of parametritic effusion, and it was not certain that it was due to the operation.

THE CABINET AND THE PROFESSION.

As it is probable that the action of the Ministry may be required to be influenced by the profession in the matter of some impending legal questions of great importance to medical men, it may be worth while mentioning that three members of the Cabinet are connected through their ancestors with the profession. Lord Cadogan is descended from Sir Hans Sloane, the celebrated physician. The estate the family holds in Chelsea was the produce of the fortune Sir Hans made as a physician. Both Sir Henry Holland's father and grandfather were well-known medical practitioners. Mr. Matthews, the Home Secretary, is descended from a physician both on his father's and mother's side. Dr. Munk in the Roll of the College of Physicians, vol. ii., says—"John Matthews was born in Herefordshire; was M.D. at Oxford in 1782, Fellow of the College of Physicians in 1783, physician to St. George's Hospital in 1781; resigned that office in 1783, when he relinquished the practice of his profession, became colonel of the Herefordshire militia, and died at his seat, Belmont, in that county, in 1826." The Home Secretary's father (the author of a well-known work, "The Diary of an Invalid") married a daughter of Dr. Blount, who practised as a physician for some time in Hereford.

LIGATURE OF THE FEMORAL IN POPLITEAL ANEURYSM.

IN an article on "Popliteal Aneurysm" by Don José A. Esteves, published in the *Revista Argentina de Ciencias Médicas*, it is stated that Dr. Pirovano employs in the Buenos Ayres Clinical Hospital in these cases the ligature of the femoral artery, intermittent compression being practised by means of Broca's compressor for some time previously for the purpose of developing the collateral circulation. The operation itself is carried out with antiseptic precautions and local anæsthesia. Twenty cases, some of them of aneurysms of very considerable dimensions, have been thus treated, with entirely satisfactory results in every instance.

A "JUBILEE" COOKERY BOOK.

THE fiftieth year of Her Majesty's reign is likely to be remembered in time to come, not only because of the interest proper to it, but perhaps equally as having been the parent of innumerable undertakings and productions, great and small, which inherit from it a nominal dignity. Of these, one of the latest and smallest, though, perhaps, not the least useful, is a "Jubilee Penny Cookery-book." This little book, by the authoress of "Cookery for our Sick and Invalid Poor," aims at introducing among the many to whom the cost of food is a serious consideration ready methods of cooking, with hints as to the choice of materials, which, if rightly applied, should furnish a diet as varied

and palatable as it is simple and inexpensive. We cannot altogether agree with an introductory statement in it, which deals with the relative nutritive value of certain kinds of food: where, for example, herrings are preferred to beef and mutton; and a shilling's worth of cheese, without regard to its digestibility, is said to have more "stay" in it than the same money value of meat. The numerous convenient recipes here collected are not, however, affected by the imperfections of the prefatory notice, and form together a body of information which must be useful to the frugal housekeeper.

A PRACTICAL COURSE OF BACTERIOLOGY IN LONDON.

A COURSE of instruction in Bacteriology will be given this summer at King's College. The object of the class, as set forth in the syllabus, is to afford an opportunity for gaining a practical knowledge of the more important species of micro-organisms, and to give instruction in the methods of cultivation as well as the special histological methods employed for detecting bacteria in the tissues. The work each day will be preceded by a short lecture illustrated with diagrams and typical microscopical preparations. The class will meet on May 16th, and will be taken by Mr. Crookshank, who has just returned from visiting the laboratories at Turin, Rome, and Berlin. This course will supply a felt want, and no doubt medical officers of health and many senior students and practitioners who have been unable to study in the laboratories abroad will avail themselves of this opportunity for learning the new biological methods, and for gaining access to cultivations of micro-organisms and the necessary material and apparatus for following this interesting and valuable line of research.

THE RED CROSS IN ITALY.

THE recent military events in Africa have given a much-needed stimulus to this society for the relief of the sick and wounded in war. Several communes throughout the peninsula which had previously failed to contribute to it have now come forward handsomely, if tardily—Rome subscribing towards it 5000 francs (£200); Milan founding a fund for an annual donation to it of 500 francs (£20); Turin, through one of her societies, giving 1000 francs (£40); and other cities and towns, mainly in Upper Italy, subscribing according to their ability. The Central Committee of the Italian Red Cross, thus reinforced as to means, has lost no time in sending to the front supplies of medicines and comforts, so that the military hospitals in the garrisons westward of Massowah are now much better off as regards these requisites than, to the discredit of the Government, they have yet been since the beginning of the campaign.

"ADDED WATER" IN MILK.

A CASE curiously illustrative of some remarks we made in a recent article is reported. A county analyst reported that a certain sample of "babies'" milk—that is, milk from a single cow—contained 10 per cent. of added water. He was afterwards requested to witness the milking of the cow, and to draw a sample for himself. The second sample, when analysed, was found to contain more "added water" than the first, and was, the analyst believes, the worst sample of genuine milk on record. What, then, is to be done? Is the already low limit of purity to be made still lower, or is the public analyst to continue to report the presence of added water when he knows that possibly no water has been added? Either alternative is undesirable, but perhaps in the public interest the second is the least so. The case, however, confirms our previous opinion, that the difficulty can only be avoided by an alteration of the law. In the next Adulteration Act let the law do for milk and some other articles what it has already done for spirits—viz., provide a definition, and fix a limit below which the vendor must not pass. The limits upon which public analysts, including the chemists of Somerset House, base their calculations are necessarily founded on very poor samples, and in a new Act it is possible that they might be slightly raised without injury to honest traders and with manifest advantage to the public. But even such low limits as 8·5 per cent. solids not fat, 2·5 per cent. fat, and 0·7 per cent. ash, would ensure the public a trustworthy, if not a rich, milk, and would remove all ambiguity from the interpretation of the law. Some important drugs might, and in our opinion certainly should, be treated in a similar manner.

INTER-COLONIAL MEDICAL CONGRESS.

IN accordance with the circular issued last year by the Provisional Committee, to which we drew attention at the time of its publication, a general meeting of subscribers to the fund of this congress, which is to be held at Adelaide, has taken place. Dr. Verco was chosen president, and an influential executive committee was appointed. The governors of seven colonies have expressed their approval of the project, and intimated their wish to become patrons of the meeting. The congress will, as is usual, be carried on in sections, thirteen of which have been defined. The days of meeting will extend from August 30th to September 2nd, both dates included; and, notwithstanding the great distances to be traversed by the majority of intending visitors, and the existence in the same month of a counter attraction in the United States, it is hoped by its promoters—and, so far as we can judge from the reports we have received, justly so—that the federal nature of the gathering and the opportunities it affords for the discussion of subjects common to the interests of practitioners throughout Australasia will combine to secure a large and representative attendance.

THE AFFILIATION OF HOSPITALS AND DISPENSARIES.

THE following resolutions were passed by the committee for organising medical attendance on the working classes at its meeting on Tuesday: "That in the opinion of this committee the out-patient department of hospitals should be brought into consultative relation with the provident dispensaries and medical men of their respective neighbourhoods, and that the governing bodies of hospitals should grant priority to all out-patients who bring recommendations from provident dispensaries or medical men." Sir Spencer Wells presided. The subject of the affiliation of hospitals and dispensaries will be continued at the next meeting, on Tuesday, May 10th.

DEATHS OF EMINENT FOREIGN MEDICAL AND SCIENTIFIC MEN.

THE deaths of the following foreign medical and scientific men are announced:—Dr. Carl E. Miriam, formerly Professor of Physiology at Kieff, at the age of seventy-five.—Dr. Nathaniel Lieberkühn, Medical Privy Councillor and Professor of Anatomy in Marburg University, at the age of sixty-five. The deceased professor was the son of the discoverer of Lieberkühn's follicles, and was a disciple of Johannes Müller, and a fellow-student of Dubois Reymond, Helmholtz, Ludwig, and Virchow. His own researches, which were numerous, were mainly connected with development. He was formerly Prosector of Anatomy in Berlin.—Dr. Joao Silva, Professor of Pathology in Rio de Janeiro, and chief of the Faculty of Medicine in that University.

SANITARY DEMONSTRATIONS TO MEDICAL MEN.

WE would call the attention of medical practitioners to a series of sanitary demonstrations which have been organised at the Parkes Museum at 5 P.M. on three consecutive Mondays next month, and to which admission is free to all members of the profession. The first demonstration will take place on Monday, May 9th, and will be conducted by Professor Corfield, M.D.; on Monday, May 16th, Mr. Rogers Field, M.Inst.C.E., will give a demonstration; and the last demonstration will be held by Mr. P. Gordon Smith, F.R.I.B.A., of the Local Government Board. In this way the medical, engineering, and architectural aspects of the question of the sanitary arrangements of dwellings will be successively brought under notice; and we expect that the number of medical men who are interested in the subject is such that the Museum authorities will find that the arrangements they have made will secure appreciative attendances.

THE DUKE OF WESTMINSTER ON THE JUBILEE.

THE Duke of Westminster in a letter to *The Times*, says the hospitals of London in this Jubilee Year should certainly not be neglected; our own view is that they should be the chief objects of favour. It seems to be very much feared that many of the ordinary charities will suffer from the Jubilee movement tending to divert funds. Surely no one will do the Jubilee such dishonour as to withdraw any established subscription from a worthy cause! The best way of celebrating it will be to make additions to ordinary subscriptions, especially in favour of the general hospitals.

MEDICAL PRACTITIONERS AND DENTISTS.

A QUESTION is raised by a correspondent of the *Journal of the British Dental Association* as to the propriety or taste of medical practitioners charging full fees where they are asked to attend dentists. Our opinion is strong that medical men who owe so much to dentists will find it highly agreeable to be of any service in return. Who that has had a tooth saved, or even a tooth skilfully extracted, and who knows the extent to which dentists are consulted by medical men and their families, and the unfailing kindness which is experienced in this way at their hands, will have a doubt that in treating dentists as we should treat medical men we are acting on the best instincts of human nature, as well as on the best traditions of the profession? We have, however, always maintained that dentists should hold a surgical as well as a dental qualification, in which case the question need not have been raised.

LONG PEPPER AS AN ADULTERANT.

THE magistrates of Lancaster have properly decided that what is known as long pepper is not what the public understand by the word pepper, and that as it is cheaper than the cheapest pepper, and is, moreover, coarse and disagreeable in smell, its admixture with genuine pepper is an adulteration. It was stated by Dr. Campbell Brown that long pepper, an article of very small commercial importance, was the fruit of a plant which grows wild in the water courses of India, whereas true pepper comes from a perfectly different plant, which is carefully cultivated. Long pepper is chiefly used for pickling purposes.

THE COCCUS OF GRANULAR LIDS.

DR. E. SCHMIDT is stated to have succeeded in finding the micro-organism described by Sattler in granular lids (trachoma), which, he says, is very similar to staphylococcus pyogenes. By cultivating this coccus he succeeded in inducing granular lids in dogs and cats.

THE ANATOMICAL SOCIETY.

THE foundation meeting of the Anatomical Society will be held on Friday, May 6th, at 5 P.M., at the Medical Society's rooms, 11, Chandos-street, Professor Humphry in the chair. All those interested in the movement are invited to attend.

FOREIGN UNIVERSITY INTELLIGENCE.

Florence.—A bronze statue to the great Italian medical jurist, Francesco Puccinotti, has just been unveiled.

Halle.—Professor Kaltenbach, of Giessen, has been offered the vacant chair of Midwifery.

Kazan.—Up till recently Dr. Skalosuboff, the professor of nervous diseases, has been obliged to confine his demonstrations to such patients as could attend at the out-patient department, having no beds assigned to diseases of this nature. Now, however, a small clinical establishment has been allotted to his chair, so that students will enjoy more extended opportunities of study.

Königsberg.—Dr. Carl Brandt, *privat docent*, has been appointed by the Minister of Education to carry on the duties of the vacant chair of Zoology up to the end of the next winter session. Dr. Brandt was formerly assistant in the Zoological Station at Naples.

Leipzig.—The Anatomical Society, which has just held its first meeting here under the presidency of Professor Kölliker of Würzburg, now numbers 190 members, including 78 foreigners.

Würzburg.—Dr. K. Rieger has been appointed Extraordinary Professor of Psychological Medicine, and Senior Physician of the Julius Hospital.

EFFORTS are being made to procure the insertion in the Theatres Bill which is now before Parliament, and which it is expected will be read a second time about the middle of June, of a clause to the effect that all exit notices should be in luminous paint. This would greatly facilitate exit, by pointing out the readiest way, especially in cases of total darkness, as when the gas is turned off at the main, which was the cause of the late catastrophe at the Jewish club in the East-end, when seventeen lives were lost in a few minutes. Herr Stehle, the Government inspector of the Royal Bavarian Court Theatre at Munich, where this system is in force, gives high testimony to its efficiency. The insertion into the Bill of such a clause could only be beneficial, and we wish success in their endeavours to those who are advocating it.

THE vigorous measures recently adopted by the authorities with the view of stamping out the serious epidemic of rabies among the deer in Richmond-park have already produced good results. It has been found necessary to slaughter only four animals during the past week, and it is believed that the disease is gradually dying out.

DR. LLOYD ROBERTS has been elected a vice-president of the Obstetric Section, and Dr. Batty Tuke, of Saughton Hall, Edinburgh, has been nominated one of the vice-presidents of the Psychological Section, at the forthcoming International Medical Congress to be held at Washington.

WE learn that an outbreak of typhus has taken place in Carlisle, and that an inspector from the Medical Department of the Local Government Board has, in consequence, visited the town.

ON the 27th inst. a barque arrived in the Tyne from Mobile Bay, the captain and several of the crew of which had died during the voyage from yellow fever.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Barnsley Urban District.—The Barnsley death-rate presents materials for serious consideration. The general rate was for 1886 as high as 29·14 per 1000; that from the seven principal zymotic diseases was no less than 6·16 per 1000; and the deaths under one year of age were at the rate of 205·9 per 1000 of the registered births. Scarlet fever during the past three years has caused 221 deaths, and during last year fifty-three fatal attacks of diarrhœa occurred. With regard to scarlet fever some difficulty was experienced because one large school remained open when the order to close schools under the Education Code was issued. We assume it was not a school receiving any grant of public money, and if so the mischance could not, in the existing state of the law, be avoided. But if it can be shown that under such circumstances the failure to close voluntarily supported schools defeats the objects for which other schools have been compelled to submit to closure, the time will probably come when it will be necessary to ask for more stringent legislation in this matter. But, apart from this, it is not creditable for the borough of Barnsley to be without any means for isolating scarlet fever, especially after the experience they have had as to small-pox. There were twenty-five small-pox deaths in the three years before the present hospital was built; in the fourteen years that have since elapsed there have only been four such deaths, the hospital having served to check the spread of the disease when imported. Some attempt was made to utilise the hospital two or three years ago for a scarlet fever patient, but the result was that small-pox was contracted; the institution, which only has beds for six acute cases, being adapted for the reception of one disease only. It is curious how authorities, who will readily spend the rates in providing means of isolation for small-pox, against which another means of protection is available, cannot see their way to do the same for scarlet fever, which is even more deadly. Compare, for example, the 14 small-pox deaths in three years which led to the provision of a small-pox hospital, and the 221 scarlet fever deaths in the last three years, which have produced no corresponding result. Dr. Sadler recommends public subscriptions to fill up this serious gap in the sanitary defences of Barnsley. In connexion with the grave diarrhœa mortality, we would urge much more rapid action as regards the present dangerous and filthy ashpit system. Warm weather does not necessarily kill children with diarrhœa, but children inhaling the disgusting emanations from receptacles containing stored refuse, which tends to saturate air and soil, are those, above all others, who are subject to such premature death. Barnsley has made substantial sanitary progress, but this last year's heavy death-rate has indicated the need for further action in more directions than one.

Stafford Urban District.—After a careful estimate of the present population, Dr. Milnes Blumer puts the birth-rate for 1886 at 35·5, and the death-rate at 17·7 per 1000. The deaths under one year were at the rate of 120 to every 1000 births registered. During a measles epidemic the plan of requiring school closure was not followed, the alternative of prohibiting the attendance of children from infected houses having been regarded as better calculated to effect the desired object, and it is stated that when the step was resorted to the disease began to subside. In connexion with the tub system, it had been suggested that in order to deal with the nuisance accompanying the collection of tubs the carts should go round at night instead of in the daytime. We do not believe this is right in principle. Tub collection can be arranged with a minimum of nuisance if proper carts and tub-covers are provided; and under any circumstances nuisance will not be remedied by doing the work under cover of darkness. There is no need to do the work in the busy hours of the day, but it should not be commenced until about sunrise. A good deal of excellent sanitary work is being steadily carried out in the district; substantial progress has been made with the new waterworks, which will shortly be in operation; and such places as bakehouses, common lodging-houses, and slaughter-houses, are both looked after and dealt with when the need for action is shown.

Belper Rural District.—Mr. J. Allen has the satisfaction of reporting a steady diminution in the rate of mortality, which stood at its highest point—namely, 17·5 per 1000—in 1879, and is now 13·8. There are, however, points to which attention is needed in the district. One relates to infant mortality, and Mr. Allen significantly refers to the relation of this mortality with those assurance companies which, by way of a grim joke, are locally known as "Death" clubs, the death so often being associated with neglect. He also urges the need for hospital provision, especially in the interests of the working classes, who, when infectious disease prevails, are unable, like their more wealthy brethren, to leave the district for a time. Holbrook and Kilbourne are still without a system of drainage, and this tells on the death-rate of the former place. One sewage outfall nuisance which had led to bitter feelings between two contending sets has been satisfactorily dealt with through the judicious handling of Major Tulloch of the Local Government Board. The voluntary system of notification of infectious diseases which is in force bids fair to break down. It is hinted that this may be due to the inadequacy of the fee offered. The usual fee in most parts of the country is half-a-crown per certificate granted, and it should not be less in the Belper district.

Crickhowell Rural District.—Powers have been granted for supplying the town of Crickhowell with a water service, and Mr. Philip Hill makes some apt remarks on the principles which should govern the authority in their action in this matter. He has more than once brought under notice the grave state of the sewer outfall, and the greasy, black, and foul mud which results, to which attention was recently drawn by Mr. Spear, of the Local Government Board. Slaughter-houses, cow-houses, and adulterations under the Food and Drugs Act are all receiving attention, and special reference is made to the unhealthiness of many dwellings by reason of dampness, excessive cold from draughts, and impurity of air from closet and other effluvia. The death-rate was high in 1886—namely, 22·7,—even if allowance is made for the fact that the workhouse deaths included several non-residents which it was not possible to allow for with accuracy.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 6428 births and 3825 deaths were registered during the week ending April 23rd. The annual rate of mortality in these towns, which had been 20·5 and 20·9 per 1000 in the preceding two weeks, further rose last week to 21·6. During the first three weeks of the current quarter the death-rate in these towns averaged 21·0 per 1000, and was 2·6 below the mean rate in the corresponding periods of the ten years 1877-86. The lowest rates in these towns last week were 14·9 in Birkenhead, 15·7 in Leicester, 15·8 in Nottingham, and 16·3 in Brighton. The rates in the other towns ranged upwards to 27·7 in Halifax, 27·9 in Cardiff, 28·7 in Liverpool, and 36·4 in Manchester. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had increased in the ten preceding weeks from 340 to 510, further rose last week to 558; they included 291 from measles, 134 from whooping-cough, 47 from scarlet fever, 40 from diarrhœa, 24 from "fever" (principally enteric), 21 from diphtheria, and only 1 from small-pox. These zymotic diseases caused the lowest death-rates last week in Portsmouth, Wolverhampton, and Halifax; and the highest rates in Norwich, Salford, and Manchester. The greatest mortality from measles occurred in Norwich, Huddersfield, Salford, Liverpool, and Manchester; from whooping-cough in Norwich, Birmingham, and Nottingham; and from scarlet fever in Blackburn. The 21 deaths from diphtheria in the twenty-eight towns included 14 in London, 3 in Liverpool, and 2 in Derby. Small-pox caused 1 death in Greater London, but not one in any of the twenty-seven large provincial towns. Only 7 cases of small-pox were under treatment on Saturday last in the metropolitan hospitals receiving cases of this disease; 2 new cases were admitted to these hospitals during the week. The deaths referred to diseases of the respiratory organs in London, which had declined in the preceding four weeks, from 509 to 363, further fell last week to 337, and were 74 below the corrected average. The causes of 92, or

2·4 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Leeds, Leicester, Portsmouth, and Derby. The largest proportions of uncertified deaths were registered in Preston, Sunderland, and Sheffield.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 22·9 and 23·7 per 1000 in the preceding two weeks, declined to 22·0 in the week ending April 23rd; this rate exceeded, however, by 0·4 the mean rate in the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 11·5 and 12·3 in Leith and Greenock, to 25·3 in Glasgow and 29·9 in Paisley. The 550 deaths in the eight towns last week showed a decrease of 43 upon the number in the previous week, and included 36 which were referred to whooping-cough, 30 to measles, 10 to diarrhœa, 9 to scarlet fever, 8 to "fever" (typhus, enteric, or simple), 2 to diphtheria, and not one to small-pox; in all, 95 deaths resulted from these principal zymotic diseases, against numbers declining in the preceding four weeks from 127 to 91. These 95 deaths were equal to an annual rate of 3·8 per 1000, which exceeded by 0·7 the mean rate from the same diseases in the twenty-eight English towns. The fatal cases of whooping-cough, which had been 31, 33, and 36 in the preceding three weeks, were again 36 last week, of which 14 occurred in Glasgow, 6 in Edinburgh, 5 in Dundee, and 5 in Aberdeen. The 30 deaths from measles showed an increase of 2 upon the number in the previous week, and included 18 in Aberdeen and 11 in Glasgow. The fatal cases of scarlet fever, which had been 11 and 10 in the previous two weeks, further declined last week to 9, of which 4 occurred in Dundee, 3 in Edinburgh, and 2 in Glasgow. The 10 deaths attributed to diarrhœa showed an increase of 3 upon the low number in the previous week, and exceeded the number in the corresponding week of last week by 1; they included 4 in Glasgow and 3 in Aberdeen. The deaths referred to "fever," which had been 8 and 6 in the previous two weeks, rose to 8 last week, and included 3 in Glasgow and 2 in Dundee. The deaths from acute diseases of the respiratory organs in the eight towns, which had been 110 and 126 in the preceding two weeks, were 124 last week, and exceeded by 24 the number in the corresponding week of last year. The causes of 57, or more than 10 per cent., of the deaths registered in the eight towns during the week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been 30·0 and 34·1 per 1000 in the preceding two weeks, declined again to 31·3 in the week ending April 23rd. During the first three weeks of the current quarter the death-rate in the city averaged 31·8 per 1000, the mean rate during the same period being but 18·7 in London and 19·3 in Edinburgh. The 212 deaths in Dublin last week showed a decline of 19 from the number returned in the preceding week; they included 6 which were referred to measles, 4 to "fever" (typhus, enteric, or simple), 3 to diarrhœa, 2 to scarlet fever, 2 to diphtheria, 2 to whooping-cough, and not one to small-pox. Thus 19 deaths resulted from these principal zymotic diseases, against 15 and 22 in the preceding two weeks; they were equal to an annual rate of 2·8 per 1000, the rates from the same diseases being 2·4 in London and 2·0 in Edinburgh. The 6 fatal cases of measles showed a decline of 1 from the number in the previous week, and those of scarlet fever, whooping-cough, and "fever," were also fewer than those returned in the previous week. The deaths from diarrhœa and diphtheria, on the other hand, showed an increase. The deaths of infants showed a marked decline, while those of elderly persons showed an increase upon recent weekly numbers. Five inquest cases and 2 deaths from violence were registered; and 56, or more than a quarter, of the deaths occurred in public institutions. The causes of 39, or 18 per cent., of the deaths registered during the week were not certified.

AT a vestry meeting held at St. Mary's, Reading, on the 19th inst., it was resolved that an address be presented to Mr. Isaac Harrinson, in recognition of his efforts to improve and beautify the town.

THE SERVICES.

Deputy Surgeon-General J. B. C. Read, C.B., has joined the Home District for duty.

Deputy Surgeon-General J. Tulloch, M.D., has assumed the duties of Principal Medical Officer at Woolwich.

Deputy Surgeon-General R. A. Chapple has been appointed Administrative Officer, Mhow Circle.

Surgeon-Major W. Taylor, M.D., has been appointed to the Staff of the Commander-in-Chief in the East Indies, and has been placed on the Supernumerary List.

WAR OFFICE.—Surgeon-General Thomas Graham Balfour, M.D., F.R.S., retired pay, to be Honorary Physician to the Queen, vice Surgeon-General W. Rutherford, M.D., C.B., deceased (dated April 23rd, 1887).

ARMY MEDICAL STAFF.—The undermentioned Surgeons to be Surgeons-Major (dated March 31st, 1887):—Henry Charlesworth, John Cotter Dorman, M.B., George Herbert Le Mottée, M.D., William Litchfield Chester, M.B., and Edward Arthur Mapleton, M.B.

ADMIRALTY.—The Greenwich Hospital pension of £50 a year for fleet and staff surgeons, vacant by the death of Dr. Gerald Yeo, has been awarded to Fleet Surgeon William G. J. Ayre.

Deputy Inspector-General of Hospitals and Fleets John Fisher has been promoted to the rank of Inspector-General of Hospitals and Fleets in Her Majesty's Fleet (dated April 1st, 1887); Fleet Surgeon Henry Frederick Norbury, C.B., has been promoted to the rank of Deputy Inspector-General of Hospitals and Fleets in Her Majesty's Fleet (dated April 1st, 1887).

In accordance with the provisions of Her Majesty's Order in Council of April 1st, 1881, Fleet Surgeon Eugène Victor de Méric has been placed on the Retired List of his rank.

The following appointments have been made:—Surgeon Alfred T. Rimell, to the *Rattlesnake* (to date from 28th inst.) Fleet Surgeon Henry S. Lander, to the *Impregnable*; Staff Surgeon M. Fitzgerald, to the *Triumph*, for Esquimault sick quarters; Staff Surgeon O. P. Browne, to the *Caroline*; and Surgeon C. D. D. E. Chamberlain to the *Rattler*.

ROYAL NAVAL ARTILLERY VOLUNTEERS (London Brigade). Edmund Distin Maddick, Esq., to be Honorary Surgeon (dated April 20th, 1887).

YEOMANRY CAVALRY.—Oxfordshire: Surgeon Frederick Taylor resigns his commission; also is granted the honorary rank of Surgeon-Major, and is permitted to continue to wear the uniform of the Regiment on his retirement (dated April 27th, 1887).

ARTILLERY VOLUNTEERS.—1st Caithness: James Leith Waters, M.B., to be Acting Surgeon (dated April 27th, 1887).—8th Lancashire: Surgeon T. F. Morrish resigns his commission (dated April 27th, 1887).—Newcastle and Sunderland: Henry S. Baumgartner, M.B., M.S., M.R.C.S., L.S.A., to be Acting Surgeon.

RIFLE VOLUNTEERS.—3rd Cheshire: Theodore Fennell, Gent., to be Acting Surgeon (dated April 27th, 1887).—1st Volunteer Battalion, the Duke of Cornwall's Light Infantry: Acting Surgeon E. S. Angove resigns his appointment (dated April 27th, 1887).—6th Lanarkshire: William Brown Moir, M.D., to be Acting Surgeon (dated April 27th, 1887).—1st Renfrewshire: Acting Surgeon T. Philip, M.D., to be Surgeon (dated April 27th, 1887).

THE VOLUNTEER MEDICAL STAFF CORPS.—The London Division: John Adam Watson, Gent., to be Surgeon (dated April 2nd, 1887).

THE VOLUNTEER MEDICAL SERVICE.

To the Editors of THE LANCET.

SIRS,—I regret to be obliged to point out to you an alteration now necessary in regard to a statement in your annotation in THE LANCET of a recent date on my paper on "The Volunteer Medical Service in Peace and War."

I have just been officially informed that the permission granted me last November to join the School of Instruction at the Medical Staff Corps Depôt at Aldershot under the usual regulations as to allowances &c. has been rescinded, and that such permission will not in future be granted to regimental surgeons, but only to surgeons of the Volunteer Medical Staff. I regret the matter the more because it seems to me that one of the difficulties most strongly deprecated by the promoters of the Volunteer Medical Staff Corps is now arising by the drawing of a most invidious distinction between the officers of that corps (and, indeed, all other commissioned officers) and the surgeons carried on the Regimental Lists.

I am, Sirs, yours faithfully,

W. P. MEARS, M.D.,
Surgeon, Tynemouth Artillery.

Newcastle-on-Tyne, April 27th, 1887.

Correspondence.

"Audi alteram partem."

THE MANCHESTER *VERSUS* THE LONDON SCHOOLS OF MEDICINE.

To the Editors of THE LANCET.

SIRS,—In THE LANCET of March 26th there is an editorial annotation dealing with the question of degrees for London medical students, in which the following remark occurs: "It is difficult to understand the position of the Colleges [of Physicians and Surgeons] in putting into the foreground of their claims the advantages and superiority of clinical teaching and clinical opportunities in London, if some residential period is not insisted on." Beyond what appears in this statement in your own columns, I must confess that I am ignorant of any such claim to superiority having been advanced in favour of the London schools. Nor is the precise meaning which the words are intended to convey to be found on the surface. If it be that throughout the length and breadth of London there are to be found clinical teachers and material for clinical instruction which, if they could be focussed and made available for the instruction of all London students, would be superior to any to be found elsewhere, then we of the provinces can afford, with much complacency, to admit that it is so. If, on the other hand, it means that, as the London schools are at present constituted and the teaching at present carried on, this same superiority over provincial schools is to be recognised, then I think it will be admitted that there are good grounds for provincial jealousy being aroused and for a wish to hear something further on the subject.

It happens that a few weeks ago I made some remarks at the close of a clinical lecture which were curiously at variance with any such idea, and your article thus immediately arrested my attention. Of other provincial schools I cannot, of course, speak; but so far as that of Manchester is concerned, as a teacher of clinical surgery in it, I feel strongly disposed to controvert the alleged contention of the Colleges in respect of every individual subject of clinical study. I believe it would be possible to show that, whether in the mere passing the tests of the examining boards, in the competition for prizes, or in general equipment for the responsibilities of practice, the Manchester student holds his own with the Londoner; and, further, in respect of clinical opportunities, that there is scarcely a school in London which can provide such a fullness of material as our own, whether in general medicine and surgery, or in the special departments of fever, insanity, ophthalmology, or the diseases of women and children. It would entail some little trouble, however, to go into this fully, and, after all, I wonder very much whether any such claim on behalf of the London schools as that referred to has ever been seriously made. I can scarcely think it possible that so much ignorance of the resources of Manchester as this would represent really exists in the Councils of the two licensing Colleges. I will therefore content myself at present with a few data which are at once accessible to me, with a view to giving a little information to those concerned, whether that information be really needed or not.

Two allegations are contained in your article: firstly, that the clinical teaching in the London schools is superior to ours; and, secondly, that the clinical opportunities are likewise superior. With regard to the first of these, it is perhaps difficult to adduce direct proof without making references which might appear invidious. A fair test, however, of the quality of the teaching may be found in the achievements of the pupils, and probably the results of competitive examinations would be as good an indication as could be obtained did the students from the schools concerned enter for such examinations in equal proportions to their total numbers. The honours examinations of the University of London would afford an excellent example for our purpose, were it not that it is undoubtedly more a matter of course for a London student to prepare for these than it is for a Manchester student, and therefore a larger proportion of the total number of the former probably enter than of the latter. Still, this is the only examination which seems to give any indication of the required information, and as it has been somewhat fashionable of late years for our men to read for the London degrees, I propose to accept this as the test we are in quest of. For this purpose I asked Dr. Wm. Thorburn, the surgical registrar of the Royal Infirmary, himself one of our most distinguished students, to look out for me the results of the honours division of the pass examinations for the last six years. Unfortunately those for 1886 are not yet published, but he has been good enough to furnish me with those for the previous five years. I need not give the several years separately, but will sum them up, and the result appears as follows:—

Second M.B. Examination (Honours).

MEDICINE.		OBSTETRICS.		FORENSIC MEDICINE.	
Manchester.	All other schools.	Manchester.	All other schools.	Manchester.	All other schools.
11 ...	77	3 ...	81	6 ...	71

At this examination, during the same five years, fifteen scholarships were given, of which Manchester obtained three, and fifteen gold medals were given, of which Manchester obtained six. At the B.S. examination in 1884, the only one of these years in which honours were given in surgery, Manchester obtained two out of six, and also took both the scholarship and gold medal, no other men being in the first division. At the M D. examination Manchester took the gold medal in 1882. When it is borne in mind that the total proportion of students in Manchester to those of London alone is as one to eleven, I think it will be admitted that this record is one that we may be fairly satisfied with. How many of the London schools can equal it?

Then, with regard to the second allegation, that of superiority of the London schools in clinical opportunities, a little trouble in the collection of figures would probably show that very few of the London hospitals can compare with Manchester in richness of material. But knowing so little of the circumstances under which the claim alluded to has been brought forward, and therefore of the importance to be attached to it, I am unwilling to engage in what is always to me an ungrateful task. At the risk of appearing egotistical, I therefore propose to limit myself almost entirely to the work of my own wards, as illustrating the work of the whole surgical department of our infirmary. Probably, without entering into tedious statistics, a fair criterion of the "clinical opportunities" of a surgical hospital is to be found in an examination of the operations performed in it. My house-surgeon, Mr. Seville, has accordingly supplied me with the following information. Since I became full surgeon, or rather since November, 1882—say, four years and a half,—1054 operations have been performed in my wards, about five every week. These were operations such as have usually to be performed in the theatre, as distinguished from small operations done in bed; but as an indication of their nature I will specify particularly those of the past month of March. They were as follows:—Scraping of lupus (2), amputation of leg, ditto of breast, excision of knee (2), ditto of hip, ditto of lymphatic glands (2), ditto of cystic thyroid, ditto of sebaceous cysts, ditto of necrosed bone (2), fistula in ano, Dupuytren's contraction, aspiration of diverticulum of knee-joint, rhinoplasty, cleft palate (2), compression for popliteal aneurysm, extraction of catheter from bladder, division of adherent ulcer, resection of ribs for empyema, suturing wounds of face, reduction of dislocated hip, taxis for strangulated hernia, vesico-vaginal fistula—a good month's work, but, happily, not encountered every month of every year. Yet, at the same time, where there is so much to be seen, one frequently meets with "runs" of cases affording excellent opportunity for teaching purposes. For example, in my last "accident" take-in week we admitted six cases of fracture of the femur, one of dislocation of the hip, and one of bruise of the hip simulating fracture of the neck. Again, some eighteen months ago I had on one operation day five cases of possible amputation in the thigh. Three were so amputated, in one excision of the knee was performed, and one was declined (senile gangrene). Once more, a short time ago one of my colleagues had three cases of lithotomy in one morning.

The above represents less than one-fourth of the in-door surgical work of our infirmary, for besides three colleagues with the same number of beds as myself, the two assistant-surgeons have some beds at their disposal. Then, in addition to all this, there is the vast field of observation in the out-patient and accident rooms, in which no fewer than 14,000 cases were treated during the year ending June, 1886. The former of these departments, under the charge of the

assistant-surgeons, is, indeed, a mine of instruction and experience to the student, of which the value can scarcely be over-estimated. The simple fact is that in every department of the hospital there is always a plethora of material for teaching purposes, and the veriest glutton, hungering and thirsting after knowledge, can only partake of a portion of what is daily set before him.

So much for surgical work only. Possibly, with your permission, some further information may at another time be given as regards our clinical opportunities in other departments. The present instalment will, however, demonstrate on what substantial grounds we may contest the claim adduced on behalf of the metropolitan schools.

I am, Sirs, yours truly,

Manchester, April, 1887. JAMES HARDIE.

THE MEDICAL STAFF AND RANK.

To the Editors of THE LANCET.

SIRS,—My chief reason for now addressing you is the underlying inference of your recent annotations and the letter of a recent correspondent that the medical staff in asking for rank is departing from its proper status as a professional body; and if you will allow me, I will try to make our views (or, at least, those of a section) plain. The question is admittedly not one of personal likes or dislikes, but rather what is necessary to honestly and efficiently carry out the duties entrusted to us. In itself we care nothing for military rank, and to anyone so inclined it can be reached through the ordinary portal for the combatant officer far easier and with less expenditure of brains and money than through the doubtful and indirect mazes of the medical staff; it is not that we regard our profession as secondary to any other, but rather that, valuing it highly, and seeing how, in developing, its threads ramify through all the segments of the military machine, we desire reasonable freedom and a defined position for our labours. There are many among the older members (and I am myself among the number) who viewed with personal dislike departures ultra-professional taken step by step, until now we have work to do identical with that of the combatant officer; but we cannot but acknowledge that this is the normal sequel of unification, and the logical and necessary outcome of our present duties is *rank*. If anyone suppose that, as at present placed, we are merely medical men charged with care of sick, let him run his eye over the medical regulations of the army detailing also sanitary work, charge of stores, command of Medical Staff Corps, which embraces duties as essentially military as any that a combatant officer can be called upon to do. These are the duties which during peace, and doubly so during war, call for a defined status for the responsible individual; one not liable to disturbance through the jealousies of the combatant ranks, or by personal interpretations of orders and warrants, and whittlings and twistings to meet a given end. It was utter absence of all trust and faith in the acts of the military towards the medical staff which constituted the motive power in the recent outcry over relative rank, and it is this which now makes us look with more than doubtful eyes over the proposed amendment of the paragraph which almost word for word repeats the preceding paragraph on honorary rank, while stopping short of the logical step of granting the latter.

The present disturbance is not our act, it has been thrust upon us; and now that the Secretary of State for War has told us (much to our astonishment) that relative rank is a meaningless phrase, we cannot but see in our present state a condition fraught with misunderstanding and friction with other segments, and with probable failure when next tested in the field. We seem to have come to the parting of the ways; the better we are professionally the less we feel the possibility of contentedness; and what we now ask for is that the War Office should know its own mind and give us fair play. If our work is to be limited to purely professional topics, we can regard our then position as medical men in Government employ with complacency. What suffices for the chaplains will suffice for us, with stripping of our trappings and gaudy uniforms, spurs, swords, and salutes, the complements of different military ranks—all a pure mockery to rankless men and an obstacle in attendance on sick men. If, however, unification is to normally evolve, we cannot but be an integral part of the military machine, and our status must be defined in it on the only recognised method—rank; and experience has now shown that this system carried out to its logical conclusions contains elements of the greatest value to the Army, State, and even also to the medical profession. It entails ultra-professional duties, and necessitates a designation embracing them; but the latter need not disturb our peace of mind, as it already exists in three of our present grades. Moreover, in a department complete in itself, some of us think we see an escape from the blot, which you so forcibly put forward in your issue of the 23rd instant—award of honours for service centred in the military head; and you do us a kindness in giving it prominence. To speak plainly, it is nothing short of a disgrace, it saps all loyal feeling towards our departmental superiors, it stifles the growth of all professional culture and progress. But will not unity, strength, and proper recognition of us as *military* medical officers performing multiform duties carry also proper and due authority and influence of our head among the other heads of the army sections, and a dominant (if not sole) influence in the internal economy of the department, including promotion as well as rewards? and will not division of our present work into professional and ultra-professional, with outside men and officers to carry on the latter, by so much deprive us of weight in the military sphere, and equally reduce the influence of our head on the points mentioned? The present blots are relics of the past, of a time when our duties were more strictly professional than they now are, and when the head possessed a lessened importance; and it seems to some of us that our present position without rank and the misplaced power over awards and promotion await the same solution—emancipation from the unreasonable supremacy in our affairs of the military caste. I am, Sirs, yours truly,

April, 1887. ONE OF THEM.

*** We have much pleasure in inserting the above letter from a distinguished officer of the Medical Department, though we cannot quite agree with the writer on some of the points he advances.—ED. L.

THE LUNACY BILL, 1887.

To the Editors of THE LANCET.

SIRS,—The new clause inserted on Feb. 22nd last into the Lunacy Bill of the present year, at the instance of Lord Monkswell, to the effect that "when any officer is transferred from one county asylum to another his service in all such asylums shall count for the purpose of computing the pension or superannuation allowance," is good so far as it goes. But there are officers who have served a sufficient number of years to earn a pension whose service has not been confined alone to county asylums, who have transferred their services from one of the county asylums to one of the borough or metropolitan district asylums, or *vice versâ*. Those gentlemen will naturally be of opinion that, in fairness, the operation of the clause in question ought to be extended to them. It will not, I venture to say, be contended that the work in the borough or district asylums is less anxious, onerous, and responsible than it is in the county asylums, and, moreover, probably one effect of the exclusion of the officers serving in them from this pension clause would be to deter the best men at present serving in the county asylums from offering themselves for such appointments in future.

I am, Sirs, your obedient servant,

Malling Place, Kent, April 23rd, 1887. JAMES ADAM, M.D.

THE ERASMUS WILSON BEQUEST.

To the Editors of THE LANCET.

SIRS,—I venture to think that the petitions which have been lately presented to the Council of the Royal College of Surgeons by persons desirous of the suppression of experiments on living animals place the question of the disposal of the funds which have accrued to the Royal College of Surgeons in a new aspect. Before these expressions of opinion by a section of the public, any disposition of the funds of the Erasmus Wilson bequest was a matter of interest mainly to the body into whose hands they had fallen, and in a secondary degree to the medical profession in general. The decision must now lie between the opinions of the leaders of the profession, as expressed in the largely

signed memorial presented to the College of Surgeons in March last, and the opinions of that section of the public which is opposed to experimentation on living animals under any circumstances whatever. I have not any doubt that the verdict which must be pronounced by the Council of the College of Surgeons will be favourable to the interests of suffering humanity, by affording increased opportunity for the research into the origin of disease by properly qualified experimenters. But the question has now come to be the decision of a medical corporation as to the necessity for experimental research; and should the decision be adverse to what is believed by far the majority of medical men to be essential for the advancement of medical science, I cannot but think that a blow of the greatest force will have been struck against the prosecution of experimental physiology throughout the kingdom.

I am, Sirs, yours obediently,

Oxford, April, 1887. W. TYRRELL BROOKS.

PUNCTURING THE ABDOMEN IN PUERPERAL CASES.

To the Editors of THE LANCET.

SIRS,—Dr. Priestley raises the question of puncturing the abdomen for extreme flatulent distension in puerperal diseases. The following case came under my care:—

Mrs. W—— (seen Nov. 6th, 1875) was confined to bed in the seventh month of pregnancy, with vomiting, dropsy, and albuminous urine (nearly one-half on testing). On Oct. 5th she was prematurely confined; labour natural. Vomiting persisted after confinement, and a severe febrile state followed, with flatulent distension of the abdomen as a chief symptom. This increased during the next few days, and on the night of the 12th, the distress being so great, I punctured the bowel (Mr. E. Jackson being with me) with a fine trocar. Flatus and some yellow fluid escaped. Relief was given, and the patient, after some weeks of illness, recovered, the albumen entirely disappearing. No inconvenience of any kind followed the operation, and the patient has enjoyed good health since. The distension returned after the operation, but was not so extreme, and the puncturing was not repeated. I am, Sirs, yours truly,

Manchester, April 25th, 1887. STEPHEN NESFIELD, M.D.

THE CONGRESS OF GERMAN PHYSICIANS.

(*From a Correspondent.*)

THE sixth Congress of German Physicians (Congress für innere Medizin) took place in the splendid rooms of the Kursaal, Wiesbaden, on April 13th, 14th, and 15th. Amongst the celebrities present were Virchow, Leyden, Gerhardt (Berlin), Leube (Würzburg), Curschmann (Hamburg), Binz (Bonn), Filehne (Breslau), Hitzig (Halle), Kopbach (Jena), Nothnagel (Vienna), Liebermeister and Jürgensen (Tübingen), Verstraten (Ghent), Kisch (Prague), and the late assistant of the celebrated Cohnheim, Lichtheim, now professor at Berne.

Leyden, as president, opened the meeting. Remarking on the growing importance of the Society, he urged the necessity of a union of all physicians in view of the increasing tendency towards specialism.

Dettweiler and Penzoldt spoke of the treatment of consumption, and both came to the conclusion that, in spite of the great hopes based on the discovery of Koch's bacillus, we are yet far from having discovered a remedy for the dire disease, and have still to rely on palliative measures. Kuehle laid stress upon the fact that tuberculosis is far more often originated by direct infection from mouth to mouth than is usually believed, and he even went so far as to speak of a "family tuberculosis" in this sense of propagation.

Lichtheim made some very interesting and practically important remarks on the etiology of pernicious anæmia, relating some cases in which there was a coincidence of tabes and this disease and an evident connexion with intestinal worms (bothriocephalus, filaria).

Rindfleisch of Würzburg advanced a new theory with regard to tabes dorsalis, basing it on a very ingenious experiment. According to this observer, the thickening of the pia mater is the primary affection, having for its effects the compression and degeneration of the posterior cords, which are more liable to be compressed than the other parts of the medulla.

Vogel (Munich) and Hagenbach (Basel) spoke of the treatment of whooping-cough, and, reviewing the various belauded remedies, they recommended a larger recourse to morphia as an antispasmodic, besides quinine (as many decigrammes as the child has years), and the local irritation of the nose advocated by Michael of Hamburg according to the experience of Hauck. But they regretted that in statistics connected with the effects of remedies there is not taken into due account the age of the child, the prognosis in no disease being so much influenced by the age as in whooping-cough. So with regard to the mortality, which, according to Vogel, is as follows: under one year 25 per cent.; from two to five 4·8 per cent.; and over five years only 1·1 per cent.

Nothnagel and Naunyn (Königsberg) were the exponents of the difficult question of the localisation of brain diseases, more especially with regard to the cortex. The latter could confirm the observations of Wernicke and Kussmaul concerning aphasia.

Litten (Berlin) laid stress upon the fact that diseases of the stomach are very often associated with malposition of the right kidney (seventeen out of his thirty-two cases), and not exclusively in women. He considers the gastric dilatation as the primary cause, and has obtained excellent results by washing out the stomach.

Adamkiewicz (Cracow) stated that he had cured several acute cases of neuralgia (supra-orbitalis) by employing a combination of chloroform and the galvanic current, and explained its immediate effects by the way of kataphoresis. This experiment is certainly worthy of attention.

Very interesting were the observations of Finkler upon a typhoid fever epidemic in a small town near Bonn, where he could trace most accurately the path of the infection. After this Professor Fraenkel of Berlin drew attention to the long vitality of the typhoid fever bacilli of Gaffky in the intestine, and he explained by this circumstance the occurrence of late infection and of relapses. Rossbach made some observations on chyluria and leucocytosis. He also exhibited a chair for the use of asthmatics and patients suffering from emphysema (*Athmungsstuhl*), invented by a patient of his, by means of which the expiration is aided by an elastic compression very easily manageable.

Cahn, assistant at Strassburg, denied the assertions of Riegel that in the carcinomatous stomach hydrochloric acid does not exist, but proved that in certain cases there is carcinoma with HCl, and yet the reaction of methyl violet, or congo, or tropæolin may be wanting.

Of very far-reaching and undoubtedly also practical importance will prove the experiment of the young professor, von Mehring, of Strassburg, who produced diabetes on fasting dogs by large doses of florhidein, an extract of the roots of the plum-tree, and who expressed his conviction that the sugar is formed solely by decomposition of albumen. These researches and operations seem worthy of special notice, as they are calculated to profoundly modify the views held of this disease. Leube congratulated von Mehring, and gave expression to the hope that we might now succeed in getting animals continuously diabetic.

Franz spoke of a question which is in Germany very much discussed, and has, indeed, become a burning one since the suggestions of Oertel—viz., whether rest or exercise is to be recommended for patients with heart disease. Leyden took part in the discussion, stating that many practitioners go too far in their anxiety for the safety of such patients, and he referred to the reports of Sir Andrew Clark, who has seen in his practice more than 600 cases of heart diseases without any bad symptoms during five years. In conclusion, Leyden expressed the hope that the next Congress, which will meet again in the beautiful queen of German watering-places, may be equally well attended.

Weisbaden, April, 1887.

THE GERMAN HOSPITAL.—On the 27th inst. the forty-second anniversary festival of this institution, which is situated at Dalston, was held at the Hôtel Métropole, the Duke of Cambridge in the chair. During the evening the secretary announced donations and subscriptions amounting to £3400, including £200 from the Emperor of Germany, £50 from the Emperor of Austria, £20 from the Chairman, and £105 from the Corporation of the City of London.

LIVERPOOL.

(From our own Correspondent.)

HOSPITAL SATURDAY.

SATURDAY, May 7th, is to be our Hospital Saturday this year, and two circumstances combine to give great interest to this year's collections. The first is the steadily growing practice of making weekly collections among large bodies of working men, the aggregate of which is realised on Hospital Saturday. The second is the honest rivalry in this good work which it is believed will be manifested this year among the workmen belonging to the different trades. The two circumstances will be enhanced by the improvement which has been observed in some branches of trade, of which it is hoped that the hospitals may feel the benefit.

THE LOCK HOSPITAL.

The hospital has been closed against all venereal cases, it being required temporarily by the committee of the Royal Infirmary, under whose management it is while the present infirmary is being taken down and a new one erected. Meanwhile many greatly needed repairs and alterations are being effected, and when the new infirmary is completed the surgeons of the hospital will be enabled to return to it with increased comfort to themselves and their patients.

ANOTHER SWING-BOAT FATALITY.

An inquest was held at St. Helens on the 25th inst. on the body of a boy who was killed accidentally by a swing-boat. It appeared that on the previous Saturday (23rd inst.) he, with a large number of other children, were playing on some land where were a number of whirligigs and swing-boats. One of the occupants of a swing-boat which was in motion having dropped his cap, the deceased ran to pick it up, when he was struck on the right side of the head by the boat and picked up insensible with a fractured skull and part of the brain protruding. He was attended by Dr. Reid, but died the following day. The deputy coroner remarked that "accidents of this kind were so common that wherever swing-boats went coroners had to follow." Some of the jury suggested the putting of a rope or fence round the boats, but the deputy coroner thought that the latter should be suppressed altogether, in which opinion the jury concurred.

SAD RESULT OF VIEWING A BODY.

A young man residing in Warrington went on the 24th inst. to view the body of a woman which had been found floating in the Saukey canal, under the impression that it might be that of his mother, who had been from home for a week attending to a sick relative. He was much excited and impressed with what he saw, and, being somewhat weak in mind, he became quite delirious and almost unmanageable. In spite of every precaution, he escaped from the house, and subsequently was found drowned in a clay-pit near.

A FATAL FOOTBALL ACCIDENT.

An inquest was held at Widnes to-day on the body of a boy aged twelve, who died on Saturday last from the effects of a kick on the shin, received while playing football on the 11th inst. He did not complain until the following day, and medical advice was not sought until the 19th inst.

Liverpool, April 26th.

EDINBURGH.

(From our own Correspondent.)

UNIVERSITY GENERAL COUNCIL.

THE statutory half-yearly meeting of the University Council held last week was of a more than ordinarily interesting character. Of late there have been evidences that this body, composed of the graduates of the University, is increasingly anxious to assert its right of forming an integral part of the University polity, and of exercising such powers as legally belong to it in shaping the course of academic development. As it was understood that questions affecting these subjects were to be discussed at the meeting, the attendance was a large one; the professoriate in particular, showing much greater interest than usual in the proceedings, was largely represented. The first business of the meeting was a communication to the Chancellor from the Prince of Wales in regard to the Imperial Institute scheme, placing its advantages before the members of the University, and bespeaking their personal interest in its support. A resolution was unanimously adopted that a loyal address should be presented to the Queen, congratulating Her Majesty on the jubilee of her accession about to be happily celebrated. The next business was the appointment of an assessor to represent the General Council in the University Court, the supreme governing body of the University. This office is now vacant through the lamented death of Dr. Rutherford Haldane. Sir Alexander Christison and Dr. Heron Watson were nominated for the office, and a division was at once taken. There voted for the former 70, and for the latter 63; but the result of the vote was challenged by Dr. Watson's proposer, who requested a poll of the whole constituency. This was agreed to. After a discussion on some proposed changes in the system of arts graduation, an important question touching the representation of the University in the General Medical Council was raised, and very warmly discussed. It was contended, and put in the form of a recommendation to the University Court, that the Court should memorialise the Government that the term "University," as used in the Medical Act in regard to the election of a representative on the General Medical Council, should signify the "Council," including all University graduates, and not the "Senatus," as it has been till now interpreted. A somewhat stormy discussion ensued, in which Sir William Turner appeared as the champion of the interests of the Senatus. In a somewhat melodramatic scene, in the face of considerable dissent and interruption, he iterated and reiterated the statement that "the Senatus Academicus is the administrative body of the University under the Universities Act." By a reference to the mode of representation of other bodies, he showed that all analogy was in favour of the election of the representative by the Senatus. Ultimately his amendment to the original motion recommending to the Court the consideration of the sound interpretation of the Universities and Medical Acts in the point raised was accepted by the Council.

THE COUNCIL ASSESSORSHIP IN THE UNIVERSITY COURT.

Owing to the nomination of two candidates for this important office, an active canvas in behalf of both is now proceeding, and the voting papers have been already issued. The election ends on May 10th, before which date the ballot papers must be returned to the University registrar. Both Sir Alexander Christison and Dr. Heron Watson are so well known and widely esteemed, and each in many points of view is so well qualified for the office, that the contest is fraught with an unusual degree of interest, and public opinion is strongly divided in the matter. The question of general politics fortunately does not enter into the contest, nor is there any element of rivalry as between two of the learned professions, as both candidates are distinguished graduates in medicine; but the issue at stake is for the most part one of the balance of power between two bodies in the University, for Sir Alexander Christison is as closely identified by his antecedents and in his nomination and support with the Senatus and an oligarchical system of university administration, as is Dr. Heron Watson by his position as a successful extra-mural teacher and his advocacy of an expanded system of professional education with the University Council Association and with university reform. This issue is, of course, one that has long been pending, and one in which increased interest has been from time to time developed by passing events; but it is brought into special prominence at the present time by the fact that the new Universities Bill is now being drafted and will shortly be before Parliament, whence the absolute importance to all parties of as strong a representation as possible of their specific requirements at the governing board of the University.

GOVERNMENT AID FOR SCIENTIFIC RESEARCH.

During a recent visit of Lord Lothian, the Secretary for Scotland, to Edinburgh, he was interviewed by a deputation of scientific men representing the Royal Society of Edinburgh in regard to the position of science in this country, and the almost complete absence of Government subsidies for its support. Sir William Thomson introduced the deputation and spoke on the general question of Scottish

claims, pointing out the extraordinary inequality in the grants under the present system as furnished to Scotland and England. To put the matter practically, he suggested that his lordship should claim an annual grant of £2000 for Scotland, one-tenth of the sum annually administered in London. He was supported by Mr. John Murray and Professor Chrystal, who drew particular attention to the establishment of the Ben Nevis Observatory under the auspices of the Edinburgh Royal Society, and to the unique and valuable work that it has accomplished. Lord Lothian, in reply, admitted the very reasonable nature of the request, and he asked them to prepare a memorandum setting forth their views on the matter, which might be of service to him in approaching the Treasury on their behalf.

UNIVERSITY GRADUATION CEREMONIAL.

The Annual Graduation Ceremonial in the Faculties of Arts, Law, and Divinity took place on April 20th, when, after a number of honorary degrees had been conferred and the new graduates capped by the Vice-Chancellor, Professor Campbell Fraser delivered an address to the graduates on "Recent and Prospective Reform in the Faculty of Arts." His historical sketch of the progress of the University during the last quarter of a century was the tale of one who has studied and largely aided in the unfolding of each stage of the development that he now narrates. In looking to the future, he trusts that the proposed commission will inaugurate an epoch of still further development, and he indicated ways in which this might be aided, in an expansion of the Arts curriculum.

Edinburgh, April 26th.

DUBLIN.

(From our own Correspondent.)

DUBLIN HOSPITALS COMMISSION REPORT.

THIS report has at last become public, and is a voluminous one, extending to over fifty pages. It enters fully into the constitution and management of a large number of the Dublin hospitals. The annual Parliamentary grant amounts to £15,850, and of this £7600 is allocated to the Richmond Hospital. This sum was originally granted on the recommendation of a former commission, on account of its great educational advantages, and because a medical school was attached. The latter, however, has been removed, while other hospitals now provide students with means of clinical instruction. The Commissioners consider that there is great urgency for providing additional accommodation for the inmates of the North Dublin Union, and that in the event of their recommendation with reference to the future application of the Parliamentary grant being adopted, the Richmond, which would cease to be a State-supported institution, should be appropriated for the purposes of the Union. They consider Steevens' Hospital to be well managed, and the nursing arrangements to be exceptionally good. As regards the Meath Hospital, the power exercised by the physicians and surgeons to elect to vacancies on the staff was only conferred formerly on the medical staff in consideration of certain rights which were relinquished, and the hospital being a county infirmary, there should be no distinction made between it and other county infirmaries in this important particular of management. They also state that the grant of £600 was fixed by the Select Committee on the condition that it should be devoted to the support of fever beds; and on these grounds they recommend that the grant should be withdrawn. The report speaks of the world-wide reputation of the Rotundo Lying-in Hospital; but states that the subscriptions, which are chiefly from the Protestant portion of the community, might be capable of considerable expansion if a larger proportion of Roman Catholics were on the Board of Governors. They consider the limiting the master's tenure of office to seven years as radically bad; while they disapprove of the practice of exacting a fee from the assistant master, which obliges him to purchase his post. The charter of the Coombe Lying-in Hospital limits the governors to 21, and it appears that several members of the present board do not subscribe anything to the funds of the institution. Here, also, as in the Rotundo, the assistant masters pay the master for the appointment. There is only one assistant, the fact being, they assume, that there are very few willing to pay the fee which the master requires. The Commissioners do not think the grant will be continued to the Westmoreland Lock Hospital, and observe that there are but two ways in which it can be supported by private charity or local rates. They consider that the grant (£2500) to Cork-street Fever Hospital cannot be defended from the point of view from which the institution must be regarded ever since legislation has imposed upon local bodies the responsibility of providing against the spread of infectious disease. The Commissioners also consider that the grant to the Hospital for Incurables cannot be justified, as institutions of the kind have no claim for support at the hands of the general taxpayer. The purchase system for posts on the medical staff which exists in Jervis-street Hospital is condemned, and the nursing arrangements are not satisfactory. In Sir Patrick Dun's the arrangements for the isolation of fever cases are very imperfect, but the general state of the hospital is one of high efficiency. The purchase system which exists at the City of Dublin Hospital is referred to, while the nursing arrangements are stated to be admirable. In reference to Mercer's Hospital, the Commissioners state that the existing corporation has practically been confined to the medical staff, who seem to have regarded the lay governors as merely lay figures. As a result the purchase system in its worst possible form exists in this institution. The Commissioners do not consider in detail the voluminous evidence to which they were obliged to listen, because the replies which had been furnished to their queries had never been considered by the board, and were often upheld by one witness and contradicted by another; while, in the next place, the evidence as a whole presents such a melancholy picture of the relations subsisting between certain members of the medical staff, as well as of the internal organisation of the institution, that no good will result from making them more public than they have been made by the evidence itself. I hope on another occasion to refer to the conclusions of the Commissioners, and the various suggestions put forward by them in distributing the Parliamentary grant on more equitable principles than those at present adopted.

ROYAL COLLEGE OF SURGEONS.

As pointed out on a previous occasion, those candidates going in for the First Professional Examination next July have been very anxious to find out whether they will be classed for examination under the scheme which has up to this been in operation, or by the proposed conjoint scheme between the two Colleges. It is not altogether the subjects but the curriculum that has puzzled candidates, for under the conjoint scheme candidates require courses in practical chemistry, practical pharmacy, and materia medica, none of which are necessary under the ordinary scheme of the College. The Council have seen this difficulty, and last week passed a resolution recommending that students should be admitted to the First Professional Examination next July, on the present curriculum of the College. This must of necessity be ratified by the College of Physicians and the Managing Committee of the two Colleges, but it is expected that it will be carried out. I am informed that Mr. Austin Meldon will be a candidate for the vice-presidency of the College in June, 1888. Mr. C. H. Robinson, at present an examiner in materia medica, has intimated his intention of being a candidate for an examinership in anatomy at the annual election of examiners, which usually takes place on the first Monday in May.

BANQUET BY SIR WILLIAM STOKES.

The banquet given in celebration of Her Majesty's Jubilee, by the President of the Royal College of Surgeons in Ireland, on Saturday evening last, was in every way a decided success. About 120 gentlemen sat down to a sumptuous repast in the Albert Hall of the College, which was handsomely decorated with flags and flowers. The various toasts were given by Sir William Stokes with his usual eloquence and good taste, and all present were charmed with the manner in which he discharged the onerous duties appertaining to the position of host. The *ménu* cards contained a portrait of Her Majesty and the arms of the College, and were in every way appropriate to the occasion.

THE ROYAL UNIVERSITY.

A petition from the graduates and undergraduates to the Senate, to allow this year's Pass in honour of Her Majesty's Jubilee, will shortly be presented. It is, I believe, only intended for Arts students, and as the University of Dublin

has already granted this concession, it is felt that the Senate of the Royal University may very fittingly agree to the prayer of the memorialists. From the fifth report, which has just been presented to Parliament, I learn that during the past year the total number of persons who presented themselves for examination at the Royal University was 2333, or an increase of 43 over the previous year. Lady students obtained various distinctions, 9 taking degrees and 4 honours. The Senate draw attention to the subject of the maintenance of the buildings which have been partly purchased and partly erected by the State, and which they consider ought not to be chargeable from the endowments which are for certain academic purposes. Owing to failure of revenues, the "Dr. Hutchinson Stewart" Scholarships cannot be awarded this year.

ACADEMY OF MEDICINE IN IRELAND.

A meeting of the Fellows was held on Tuesday last, Dr. McDonnell in the chair. It was resolved, by a majority of fifty-four to three, that the title of the Academy should in future be "The Royal Irish Academy of Medicine"; and it was decided to present an address to Her Majesty congratulating her upon the celebration of her Jubilee.

FRACTURE OF THE SPINE.

At a meeting of the Surgical Section of the Academy of Medicine in Ireland last week, Mr. Edward Hamilton exhibited two cervical vertebræ which presented peculiar characters. A young man had fallen over a wall of about twelve feet into the soft mud of the river Liffey, and died twenty-one hours after removal to hospital. On post-mortem examination the fourth and fifth cervical spines were found fractured, and also the bodies of the same vertebræ in a vertical direction. That such extensive injuries should have occurred by a fall from such a trifling height on to soft, muddy ground appears unaccountable. At the same meeting Sir William Stokes showed a girl who had been operated on by lateral thryoidectomy.

Dublin, April 26th.

PARIS.

(From our own Correspondent.)

ANTIPYRIN AS AN ANODYNE.

At a recent meeting of the Academy of Sciences, Professor Germain Sée made a communication upon "The Treatment of Pain by Antipyrin." This substance, which was discovered by Knorr in 1884, was first employed, as its name implies, for lowering the temperature, and it was expected that it would prove useful in typhoid fever, articular rheumatism, and other acute affections. It has not, however, been as satisfactory in its action as was anticipated, and if the temperature can be by its use lowered at will, it does not seem to exercise much effect upon the process of disease. But according to M. Germain Sée, antipyrin is the remedy, *par excellence*, for pain, and far superior in every way to antifebrine. In fifteen cases of subacute rheumatism, or hydrarthrosis, treated unsuccessfully by salicylate of soda and ignipuncture, the pain and swelling disappeared in a few days, and, the medicine being continued, there was no relapse. The same effect was observed in cases of acute gout, both primary and secondary to chronic gout with chalky deposits. Antipyrin, to the extent of from 60 grs. to 90 grs. a day, removed both pain and swelling in from two to four days without any bad effect either on the heart or kidneys. But it is, above all, in nervous pain that its action is most remarkable. A first group comprises four cases of facial neuralgia, one of which was inveterate, six of migraine, with one failure, and four headaches. In a second series are classed five cases of sciatica, one of simple neuritis, two of diabetic neuritis, and two of neuritis with zona (one failure). Cases of lumbago and muscular rheumatism make up a total of eighteen. The third category relates to five cases of locomotor ataxia, in four of which the pains were removed by antipyrin. In the fifth instance it failed, as did also antifebrine. The last group comprehends those affections of the heart, aorta, and coronary arteries in which angina is a most painful symptom. In six patients with cardio-aortic disease, and in three others with aneurysm, the painful manifestations disappeared entirely, without any evil effect being caused by the medicine on the strength or regularity of the cardiac pulsations. The dose given by M. Sée is from three to six grammes daily. If too much is given at one time, nausea and giddiness may supervene, but when the whole amount is divided into small repeated doses of half a gramme, no disagreeable effects are observed. Antipyrin may be given and continued for a length of time with but little risk. Antifebrine, on the other hand, is dangerous when administered in doses exceeding one gramme. It causes hæmoglobin to pass into the condition known as metahæmoglobin, and the blood losing part of its oxygen becomes of a chocolate colour, cyanosis and collapse being the consequences. From laboratory experiments it is found that reflex excitability to electricity is diminished by antipyrin, and the sensory perceptivity of the cord is lessened.

TREATMENT OF DIABETES.

A few weeks back M. Martineau created a sensation in the medical world by the publication of the results obtained by him with his "specific" for diabetes, and since then we have all been prescribing arsenicated lithia water. Dr. Le Blond now makes known a rival treatment, which, if not precisely new, is novel in its mode of application, and from which he has obtained some remarkable results. The administration of oxygen in the form of peroxide of hydrogen has often been tried, but, although it would seem theoretically to be the ideal treatment for glycosuria, results have not been sufficiently constant to popularise it. M. Le Blond has reopened the question, and advises the administration of an aerated water which has been manufactured in Paris for the last few years, and which only differs from the familiar *siphon* in that it is gaseous from oxygen instead of carbonic acid. Three cases are reported, in which the treatment caused the total disappearance of sugar from the urine; in a fourth the partial failure was due to imperfect oxidation from chronic bronchial catarrh.

M. PASTEUR'S TREATMENT.

M. Pasteur has returned to Paris in good health, and was warmly welcomed by his colleagues at the last meeting of the Academy of Sciences. On this occasion a communication was made concerning two stablemen in the employ of M. Charles de Lesseps, one of whom had been licked by a mad dog, and cured by anti-rabic inoculation. His fellow-servant was bitten, and having neglected this precaution, died of rabies. In my account of the case of Hamyau the dose of pilocarpine given daily is reported to be fifteen grains. This is a misprint for one-fifth of a grain.

MORPHINOMANIA IN MONKEYS.

Experiments have hitherto tended to show that animals did not acquire the so-called morphia habit. Rabbits to which morphia is administered for months in enormous doses, as much as eight grains per day, bear the sudden suppression without any evidence of discomfort. But it would appear from a memoir sent by Dr. Jammes of Cambodge to the Academy of Sciences that this is not the case with monkeys. When these live with opium-smokers, and have become accustomed to a medicated atmosphere, they acquire a taste for the poison. One monkey, for instance, would wait until its master had laid aside his pipe, and would then take it up and smoke what remained. If not allowed to do so for several days, it would fall into a state of depression and stupor, which disappeared as soon as the stimulant was supplied. I dare say some of your readers will remember a monkey at the Zoological Gardens which had been taught by the keeper to smoke tobacco.

TREATMENT OF GRAVE EPISTAXIS.

M. Verneuil, who, although one of our most eminent surgeons, makes frequent incursions into the domain of pure medicine, read a communication at the Academy of Medicine upon the treatment of certain forms of epistaxis by counter-irritation over the region of the liver. M. Verneuil began by stating that he had at first thought that the method was entirely his own, but from bibliographical research it turned out that he had been anticipated to a certain extent by Galen, who says that large cupping glasses applied to the hypochondria arrest nasal hæmorrhage. In the first case related by M. Verneuil, the epistaxis was probably symptomatic of cirrhosis of the liver. Quinine, ergotine, and digitalis had all been tried in vain. The hæmorrhage continued to recur at intervals. The second patient had suffered from nasal hæmorrhage, which seemed to have been caused by the shock of a kick from a horse. In this

case plugging had failed. The third was the subject of chronic nephritis, with secondary affections of the heart and liver, and the cavity of the nose had been plugged without effect both with ergotine and perchloride of iron. M. Verneuil's treatment, which was immediately and permanently efficacious, consisted of the application over the region of the liver of a large blister.

Paris, April 27th.

ROYAL COLLEGE OF PHYSICIANS.

A COMITIA of the College was held on Thursday last, the 28th inst., the President, Sir W. Jenner, Bart., in the chair. The chief business was the election of new Fellows. The following were chosen:—George Oliver, M.D. Lond., Harrogate; Robert Cory, M.D. Cantab., Lambeth Palace-road, S.E.; Henry Radcliffe Crocker, M.D. Lond., Welbeck-street, W.; Frank Buzzard, M.D. Lond., Northampton; Robert Saundby, M.D. Edin., Birmingham; Charles James Cullingworth, M.D. Durh., Manchester; Wm. Julius Mickle, M.D. Toronto, Bow, E; George Allan Heron, M.D. Glasgow, Harley-street, W.; James Anderson, M.D Aberdeen, Wimpole-street, W.

There were also admitted as Members—D. Burgess, M.B., Jas. Calvert, M.D., Thos. Johnstone, M.D., and T. F. Pearse, M.D.

Licences were granted to the ninety-two candidates who had passed the recent examination.

Communications were read from students of the Westminster Hospital, of Charing-cross Hospital, and the London Hospital, containing resolutions in support of the granting of degrees by the Royal Colleges. These were referred to the Committee of Delegates.

The text of the address to Her Majesty on the occasion of her Jubilee was read and approved.

The Quarterly Finance Committee submitted their report, which contained a recommendation that the stipend of the Registrar be raised to the sum of 500 guineas. The proposal, moved by Sir E. Sieveking, seconded by Dr. Hare, and supported by Dr. Quain and the President, was received with much applause; and the President expressed the sense of the College in stating that neither money nor thanks could repay the debt which the College owes to Sir Henry Pitman. Sir Henry acknowledged the vote in feeling terms, and took occasion to present the College with a volume which he had compiled, to replace the only volume of the College annals (viz., 1771 to 1781) that is missing from the long series.

Obituary.

ALFRED MEADOWS, M.D., F.R.C.P.

WE briefly adverted last week to the death of this well-known obstetrician, which took place at the early age of fifty-five, after a short illness. A familiar figure will be missing from our midst. A name which designated a physician especially esteemed by the public drops from the roll of contemporary practitioners.

Dr. Meadows was born at Ipswich, and received his medical education in King's College, London, where his energy and zeal in the study of his profession were early recognised. He speedily took an advanced place amongst the students of his year, and filled the office of resident obstetrician at the hospital with distinction. He early showed considerable literary ability, and as a student edited the Transactions of the King's College Medical Society. He took the M.B. Lond. in 1857, the M.D. in 1858, and became F.R.C.P. in 1873. The appointments which he held at various periods of his career were numerous, including that of physician-accoucheur to the St. George's and St. James's Dispensary, assistant-physician for diseases of women and children at King's College, physician to the Hospital for Women, Soho-square, and physician-accoucheur to the General Lying-in Hospital. At the time of his decease he held the appointment of physician-accoucheur to St. Mary's Hospital, an office to which he had been elected without competition on the resignation of the late Dr. Tyler Smith. His death has occasioned a profound feeling of regret amongst his colleagues at the hospital, who fully appreciated his ability, and have received a great shock from his sudden and untimely end. Besides being an honorary member of numerous foreign societies, Dr. Meadows obtained a Commandership in the Order of Wasa of Sweden, and in his own country was made a justice of the peace for the county in which he possessed a country house—Poyle Manor, Colnbrook, Bucks.

Dr. Meadows was distinctly a man of exceptional ability. Not only did he achieve a great success in the department of practice which he had chosen whilst yet a student, but in various directions he evinced power of no ordinary kind. Early in his career he published a "Manual of Midwifery," which has been widely read. This was followed by the "Prescriber's Pharmacopœia," a pocket companion of a handy kind. About the year 1860 or 1861 he commenced to edit a monthly journal of medicine called the *London Medical Review*, which enjoyed a considerable success for a few years. It was characterised by a great spirit of fairness, and the articles, which were contributed by many old friends and fellow-students of the editor, were in advance of the more usual examples of critical composition.

Besides enjoying a lucrative practice, Dr. Meadows was also, at least in the more recent part of his career, possessed of good private means. This circumstance, far from interfering with his energy, appeared to intensify his zeal for the profession to which he was passionately attached. With a strong religious bias, he lost no opportunity of endeavouring to forward the interests of the Guild of St. Luke, in the formation of which he took the most prominent part. Dr. Meadows was also well known as an energetic Freemason. He was a past officer of the Grand Lodge of England, and was connected with several private lodges. He took one of the most active parts in founding the University of London Lodge, and it was largely due to his influence that so many members of our profession joined it. After serving in the Wardens' chairs he became the Master of the Lodge, which post he held at the time of his death. At his country house he showed great artistic taste in the decorations and furniture, whilst the completeness which distinguished all his arrangements for comfort and elegance proved the untiring energy which he was accustomed to throw into every subject which engaged his attention.

Dr. Meadows had a good address. He was of kindly nature, hospitable, strongly Conservative in politics, and much attached to his patients. He was a good operator and an ingenious mechanician. Unlike so many members of his profession he was an excellent man of business, and as chairman of a meeting he was unsurpassed by any of his contemporaries in our ranks.

Dr. Meadows leaves a widow and a daughter. He was buried on Saturday last at Colnbrook, his funeral being attended by a very large concourse of friends.

CHARLES JAMES BRACEY, M.B.

WE record with regret the decease of Mr. C. J. Bracey, of Birmingham, which occurred on April 21st at the residence of a relative near London, in the forty-ninth year of his age. Mr. Bracey was the son of an esteemed Birmingham surgeon. He pursued his studies at the Queen's College and General Hospital, Birmingham, and subsequently at King's College, London, and in Paris. He took the M.B. of the London University in 1861, and carried off the University Exhibition and Gold Medal in Surgery, taking in addition high honours in Medicine and Midwifery. Returning to Birmingham, he was medical tutor at the school for two years, and afterwards house-surgeon at the General Hospital. He subsequently became Professor of Anatomy in Queen's College, surgeon to the Children's Hospital, and surgeon to the Hospital for Women. At this time no surgeon in Birmingham stood so well for attaining the first position as a consultant, for which by education, by experience, and by address Mr. Bracey was so eminently fitted. But the state of his health, never very robust, warned him about ten years ago that he must give up public work and the anxieties and responsibilities of operative and consulting practice. Mr. Bracey then devoted himself to his practice, which was of the highest class, and even then he had to recuperate by rest and frequent sea voyages.

The deceased gentleman had for the last eighteen months suffered from retention of urine, due to prostatic disease, and a few weeks ago he decided to go up to London to place himself under the care of his friend Mr. Page of

St. Mary's Hospital, who successfully removed a large number of prostatic calculi. The operation was most satisfactory, and for three weeks he seemed to go on favourably, and, the wound having healed, he was removed from town and went to stay at the residence of a relative preparatory to taking a voyage to the Canary Islands. He, however, suffered from increasing vomiting, which had been more or less troublesome since the operation, and sank from exhaustion nearly a month after its performance.

The charm of Mr. Bracey's disposition and manner, the culture of his mind, and the tenderness of his heart will be long held in loving memory by the circle of friends who knew him intimately—a circle limited by the requirements of his health only, for no professional man in Birmingham would have been more welcomed by every class. By his professional brethren and by his patients he was held in the deepest respect and closest affection, and his early death has caused a blank in the profession in Birmingham.

THE CHEVALIER FELICE GALLONE.

THE Royal Household of Italy has just lost an old and trusted medical adviser in Dr. Gallone, who died in Rome on April 21st, in his seventy-third year. He qualified in the "Summi in Medicinâ Honores" in the University of Turin, and at once devoted himself to the practice of his profession. In 1854, when the cholera epidemic was numbering many victims in the sub-Alpine capital, he exerted himself with so much courage, skill, and success, that the then King Victor Emanuel decorated him with the Cross of SS. Maurice and Lazarus, while he also received the gold medal for "good service in the cause of public health." Following the Royal household to Rome in 1870, he there continued the practice of his profession, winning the esteem of all his colleagues and earning the gratitude of the august *clientèle* to which his official connexion with the Court introduced him.

Medical News.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS OF EDINBURGH AND FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.—At the April sittings of the examiners, held in Glasgow, the following candidates passed the final examination for the triple qualification:—

Adie, Alfred A., Glasgow.	Kapadia, S. A., London.
Brodie, James, Edinburgh.	M'Lean, Alfred Jos., St. Helens.
Bowker, C. S., Appleby Magna.	Marquis, A. F. C., Glasgow.
Clark, George A., Southsea.	Rutherford, V. H., Newcastle-on-Tyne.
Cooper, W. F., Birmingham.	Smith, Henry, Glasgow.
Davis, George W., Liverpool.	Williams, W. A. G., Carmarthen.
Huntley, Edith Ara, St. Albans.	

SOCIETY OF APOTHECARIES.—The following gentlemen, having satisfied the Court of Examiners as to their knowledge of the Science and Practice of Medicine, Surgery, and Midwifery, received certificates entitling them to practise as Licentiates of the Society on April 21st:—

Hensley, Arthur Egerton, Parkham Rectory, Bideford.
Harris-Liston, Llewellyn, Cambridge House, St. John's.

On the same day eleven others were admitted to examination, of whom three passed in Surgery and seven passed as Assistants.

THE Prince of Wales has intimated his intention of visiting Great Yarmouth on the 18th prox., when the foundation stone of a new hospital is to be laid.

THE annual Hospital Sunday demonstration of the Grantham Friendly and Trade Societies has been fixed for the 15th prox.

WESTMINSTER HOSPITAL MEDICAL SCHOOL.—Dr. Charles Mercier has been appointed to give a course of lectures on "Neurology and Alienism" at this medical school in the winter session.

THE foundation stone of the Merthyr Tydvil General Hospital is to be laid on June 21st, and the Marquis of Bute will be invited to perform the ceremony.

AT the last meeting of the Hospitals Committee of the Manchester City Council, it was resolved to accept a tender for the erection of an infectious diseases hospital for the sum of £13,937.

PRESENTATION.—On the 16th inst. Mr. J. F. Little was presented with an illuminated address and an oak casket on the occasion of his leaving Ilkley for the south of England.

THE City Council of Worcester have adopted, by 30 to 8 votes, a scheme of sewage disposal by means of precipitation works at Digles, prepared by Mr. Thomas Hawkesley. The estimated cost is about £40,000.

LEGACIES AND DONATIONS.—A legacy of £50, bequeathed by the late Mr. Joseph Borman, has been received by the treasurer of the Lincoln County Hospital.—The late Mr. Benjamin Lancaster of Bournemouth, who died on the 16th ult., has bequeathed £1000 each to St. George's Hospital and the Brompton Cancer Hospital, and £500 each to the Middlesex Hospital, King's College Hospital, the Consumption Hospital, Brompton, and the Hospital for Incurables, Putney.—Mr. R. A. Newbon of Islington has given £1050 to the Great Northern Central Hospital, with the object of endowing a bed in the new establishment. In order to complete the building a sum of £45,000 is required; only £10,000 has as yet been subscribed.

AT a meeting of the subscribers to the Dartmouth Jubilee Cottage Hospital scheme on the 22nd inst., regret was expressed at the smallness of the support afforded to the project, but it was ultimately agreed to hire a building and commence operations, the expenses of the hospital being limited to £150 annually.

THE ABUSE OF MEDICAL CHARITIES.—The Glasgow Medical Charities Committee, appointed at the public meeting of practitioners in the Faculty Hall on the 30th ult., met on Friday, the 22nd inst., and, having appointed Professor James Morton, M.D., chairman, and Dr. Edward McMillan vice-chairman, and the other office-bearers and members of the executive, proceeded to consider the initial steps of dealing with the whole question of the abuse of medical charities. Professor Gairdner strongly advised a conference with the Charity Organisation Society, as being in possession of the best possible information regarding the abuse of charitable institutions and the most successful means of dealing with it. He was of opinion that while the out-door cases should be seen for the first time, the services of that Society might be obtained for the purposes of investigation. Dr. Erskine spoke of the importance of introducing the lay element into the committee, and it was proposed to invite the managers of the various medical charities to confer with the committee and become members of it. Other important points were afterwards considered. The Secretary (Dr. Robb, Carlton-place), who was desired to obtain information from other towns in England and Scotland where reform of charitable medical institutions has been effected or is under consideration, will, we understand, thankfully acknowledge all such which may be addressed to him.

THE LEVÉE.—The following members of the medical profession were presented to the Prince of Wales at a *levée* held on the 25th inst. at St. James's Palace by His Royal Highness on behalf of Her Majesty:—Surgeon-Major W. R. Brunton, 1st Surrey Rifles; Dr. T. Vincent Dickinson; Dr. James Ellison, surgeon to Her Majesty's Household at Windsor; Surgeon Alfred Thomas Irvine Lilly, Army Medical Staff; Dr. David Nicolson, superintendent of the State Asylum, Broadmoor; Dr. C. V. Stanford; Sir James Sawyer; Surgeon W. Henderson Starr, Army Medical Staff; Surgeon Walter Tytheridge, 12th Middlesex (Civil Service) R.V. Also the following members of the Naval Medical Service:—Surgeon J. E. Coad, M.B.; Surgeon W. J. Colborne; Surgeon G. F. Collins; Surgeon G. T. Collingwood; Surgeon C. Dickinson; Surgeon E. Griffin, M.D.; Surgeon H. St. D. Griffiths; Surgeon R. Hardie, M.B.; Surgeon J. D. Hughes; Surgeon H. Holyoake; Surgeon J. A. Moon; Surgeon J. D. Menzies, M.B.; Surgeon R. Miller, M.B.; Surgeon J. Moore; Surgeon Charles Strickland; and Surgeon J. W. O. Underhill, M.B. The following members of the medical profession also attended:—Drs. James H. Aveling, Argyll-Robinson, T. B. Christie, C.I.E., Grainger Stewart, C. A. L. Robertson, J. Wickham Legg, D. F. Phillips, P. Heron Watson, and Messrs. Berton (Acting Surgeon) and T. J. Haran (Inspector-General, R.N.). [The above list, though carefully compiled, may possibly not be quite complete. Any names which may have been inadvertently omitted will, however, be published in our next, if intimation be given to us to that effect.]

THE Prince and Princess of Wales will open the new buildings of the London Hospital at 5 o'clock on the 21st prox.

UNIVERSITY COLLEGE HOSPITAL.—A public dinner in aid of the funds of this charity was held on Wednesday last, the Right Hon. G. J. Goschen, M.P., in the chair. After the usual loyal toasts had been honoured, Mr. B. L. Cohen proposed "The Houses of Parliament," and Mr. R. G. Webster, M.P., responded. Mr. Goschen, in proposing the toast of the evening, was very happy in his comparison between the nation and the institution; both alike had debts and liabilities, and an inelastic revenue. Dr. Russell Reynolds proposed "The Hospital and Medical Committees," which was replied to by Captain Douglas Galton and Dr. G. V. Poore. The dinner was successful, £1885 having been announced by Mr. N. H. Nixon, the secretary, as the amount of subscriptions.

UNIVERSITY OF OXFORD.—The following notice to candidates intending to offer themselves for either of the examinations for the degree of Bachelor of Medicine has just been issued by the Regius Professor of Medicine, Sir Henry W. Acland:—(1) The Final Examination to be holden in Trinity Term next will by statute, and under the Medical Act, 1886, be an examination qualifying successful candidates, first, for the degrees of Bachelor in Medicine and of Bachelor in Surgery; and, secondly, for the registering of a complete qualification in Medicine, in Surgery, and in Midwifery. (2) That the Final Examination for the degrees of Bachelor of Medicine and Bachelor of Surgery will begin in the first week of Trinity Term—i.e., on Tuesday, May 31st. (3) That an examination for the degree of Master in Surgery will be holden during the same week. (4) That the First Examination for the degree of M.B. will begin at a later date during the Trinity Term—viz., on Monday, June 27th. Also the Secretary to the Boards of Faculties has given notice that, in accordance with the statute, names of candidates for the Second or Final Examination for the degree of Bachelor of Medicine must be sent in to him not later than May 14th; and for the First Examination for the same degree not later than June 11th. All candidates, in giving in their names, are required by the statute to pay the fees for admission and to produce the required certificates.

MEDICAL NOTES IN PARLIAMENT.

The Pasteur Treatment.

IN the House of Commons on the 25th inst., Mr. W. M'Laren asked the Secretary of State for the Home Department whether it was a fact that a constable of the Nottinghamshire police, and two constables of the metropolitan police, were sent to M. Pasteur for treatment last year; whether any of them were sent at the public expense; whether, considering the number of deaths that had attended M. Pasteur's treatment, he would use his influence to prevent any more public servants being subjected to it, or public money being spent upon it, until the Buisson Vapour Bath system, which could be obtained in England, had been thoroughly investigated; and whether, as a Committee had been appointed to investigate M. Pasteur's system, he would appoint another Committee to investigate the Buisson Vapour Bath system of preventing hydrophobia.—Mr. Ritchie, in reply, said that the Nottingham constable was sent at the cost of the county rates, and the metropolitan police at a cost to the public of £237. The report of the Committee appointed to inquire into the Pasteur system had not yet been received. It was not proposed to ask the Committee to extend the inquiry to the Buisson system, or to appoint another Committee of Inquiry.

Aberdeen Infirmary and Lunatic Asylum Bill.

On the 27th inst. this Bill was considered and ordered for third reading.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ARMSON, FRANK GREASLEY, M.R.C.S., L.S.A., has been appointed Medical Officer and Public Vaccinator to the Yoxall District of the Lichfield Union, vice George Chapman, M.R.C.S., L.S.A., resigned.

BARLING, A. S., L.R.C.P.Lond., M.R.C.S., has been appointed House-Physician to the General Infirmary, Leeds.

CAREY, BASIL DE B., B.A.Cantab., M.R.C.S., L.S.A., has been appointed Clinical Assistant to the Hospital for Consumption and Diseases of the Chest, Brompton.

CARTER, D'ARCY B., M.R.C.S., L.R.C.P., has been appointed Surgeon to the Shipley and Eccleshill District of the Great Northern Railway.

DONALDSON, DAVID GILBERT, M.B., C.M.Ed., has been appointed Parochial Medical Officer and Medical Officer of Health for Dunning, Perthshire.

ELLIS, WILLIAM HENRY, M.R.C.S., L.S.A., has been appointed Surgeon to the Shipley and Eccleshill District of the Great Northern Railway.

FORSYTH, ROBERT, M.D.Glas., has been reappointed Medical Officer of Health for the Birstal Urban District.

FOX, GEORGE MARTIN, L.R.C.P. Lond., M.R.C.S., L.S.A., has been appointed Resident Medical Assistant to the General Hospital, Birmingham.

GRIMSDALE, THOMAS BABINGTON, B.A., M.B.Cantab., M.R.C.S., has been elected Honorary Assistant Medical Officer to the Shaw-street Hospital for Women, Liverpool.

HOLLOWAY, WILLIAM G., B.A., M.B., M.R.C.S., has been appointed House-Surgeon to the Hastings, St. Leonards, and East Sussex Hospital.

JONES, JOHN J., M.B., C.M.Glas., has been appointed Medical Officer for the Laughton District of the Rotherham Union.

LILLEY, JAMES HARRIS, M.A., M.B. Cantab., M.R.C.S., has been appointed Medical Officer for the Burghill District of the Hereford Union.

MACPHERSON, ALEXANDER, M.D.Aber., has been appointed Medical Officer of Health for Haslingden, Lancashire.

MILNER, E. T., M.A., M.B.Oxon., has been appointed Resident Medical Officer at the Convalescent Hospital in connexion with the Manchester Royal Infirmary.

NEVINS, ARTHUR E., M.R.C.S., L.R.C.P.Ed., has been appointed House-Physician to the Middlesex Hospital, vice Hedley Bartlett, L.R.C.P., M.R.C.S.

OLDHAM, MONTAGUE WILLIAMS, M.R.C.S., L.R.C.P. Lond., L.S.A., has been appointed Ophthalmic and Obstetric House-Surgeon to the Queen's Hospital, Birmingham, vice T. Emery, resigned.

SMART, DAVID, M.B., C.M.Ed., B.Sc., has been elected Honorary Assistant Medical Officer to the Shaw-street Hospital for Women, Liverpool.

TOMLINSON, W. H., M.R.C.S., L.S.A., has been appointed House-Surgeon to the Oldham Infirmary.

WILLIAMS, LIONEL, M.R.C.S., L.S.A., has been appointed Assistant House-Surgeon to the York County Asylum.

Vacancies.

In compliance with the desire of numerous subscribers, it has been decided to resume the publication under this head of brief particulars of the various Vacancies which are announced in our advertising columns. For further information regarding each vacancy reference should be made to the advertisement.

CANCER HOSPITAL, Brompton, S.W.—Assistant House-Surgeon. Appointment for six months. Salary at the rate of £35 per annum, with board and residence.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's-inn-road, W.C.—House-Surgeon. Rooms, gas, and firing.—Assistant Surgeon.

CHELTENHAM GENERAL HOSPITAL.—Assistant House-Surgeon. Salary £40 per annum, with board and apartments.

CITY OF LONDON LUNATIC ASYLUM, Stone, near Dartford, Kent.—Medical Superintendent. Salary £500 per annum, with residence, coals, gas, washing, and garden produce.

COUNTY ASYLUM, Stafford.—Resident Medical Officer and Superintendent. Salary £300 per annum, with unfurnished residence within the Asylum, and £200 in lieu of board.

DORSET COUNTY ASYLUM, near Dorchester.—Assistant Medical Officer. Salary £120 per annum, with board &c.

FARRINGDON GENERAL DISPENSARY AND LYING-IN CHARITY, Bartlett's-buildings, Holborn, E.C.—Honorary Physician.

GLOUCESTER GENERAL INFIRMARY AND GLOUCESTER EYE INSTITUTION.—House-Surgeon. Salary £100 per annum, with board, lodging, and washing.

GREAT NORTHERN CENTRAL HOSPITAL, Caledonian-road, N.—House-Physician.

INFIRMARY FOR CONSUMPTION AND DISEASES OF THE CHEST AND THROAT, Margaret-street, Cavendish-square, W.—Honorary Visiting Physician.

LONDON THROAT HOSPITAL, Great Portland-street, W.—Dentist.

MADAGASCAR MEDICAL MISSION.—Superintendent of Hospital, &c. Salary £150 to £200 a year, house, outfit, &c.

MASON SCIENCE COLLEGE, Birmingham.—Professor of Physiology.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen-square, Bloomsbury.—Senior House-Physician. Salary £100 per annum. Junior House-Physician. Salary £50 per annum. In each case board and apartments are supplied in the hospital.

ROYAL ALBERT HOSPITAL, Devonport.—Assistant House-Surgeon. Board and lodging in the hospital, but no salary.

SUSSEX COUNTY HOSPITAL, Brighton.—Assistant Surgeon. Assistant House-Surgeon. Board, lodging, and washing, but no salary.

YORK FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Assistant Medical Officer. Salary £150 per annum; part accouchement fees; £20 for cab hire.

Births, Marriages, and Deaths.

BIRTHS.

ACKLAND.—On the 20th inst., at Bideford, Devon, the wife of Charles Kingsley Ackland, L.R.C.P.Lond., of a daughter.

BERRY.—On the 21st inst., at Horncastle, the wife of J. B. Berry, M.R.C.S., of a daughter.

CARTER.—On the 21st inst., at Stamford, the wife of T. E. Carter, M.B.Lond., of a daughter.

DUKE.—On the 15th inst., the wife of Maurice Smelt Duke, M.R.C.S., of Kennington-park-road, London, of a son.

FAIRBANK.—On the 26th inst., at Moulsey House, Windsor, the wife of William Fairbank, M.R.C.S.Eng., of a daughter.

FLECK.—On the 20th inst., at Frogmoor Lodge, High Wycombe, the wife of William Fleck, M.D., of a son.

GODDARD.—On the 25th inst., at Wembley, near Harrow, the wife of Charles Ernest Goddard, M.R.C.S., L.R.C.P., of a son.

JONES.—On the 19th inst., at Marylands-road, W., the wife of J. Thoresby Jones, L.R.C.P., M.R.C.S., of a son.

MCCLEMENT.—On the 19th inst., at Holles-street, Merrion-square, Dublin, the wife of F. McClement, M.D., Staff Surgeon, H.M.S. *Active*, of a son.

MCMULLEN.—On the 14th inst., at Brixton-road, the wife of W. McMullen, L.K.Q.C.P.I., L.R.C.S.I., of a daughter.

SCOTT.—On the 16th inst., the wife of Alfred Scott, M.R.C.S., Germanplace, Brighton, of a daughter.

SCOTT.—On the 21st inst., at Bladud-buildings, Bath, the wife of Richard J. H. Scott, M.R.C.S., of a son.

SMITH.—On the 23rd inst., at St. Austell, the wife of J. Snowden Smith, M.R.C.S., L.R.C.P., of a son.

SYDNEY.—On the 25th inst., at Pownall-gardens, Hounslow, the wife of Henry Sydney, M.D., of a son.

MARRIAGES.

ARNOLD—MUNN.—On Feb. 16th, at the Cathedral, Shanghai, Charles Arthur Arnold, M.B., C.S.Aber., of Nagasaki, Japan, to Mary Isabella, only daughter of the late Captain H. O. Munn, 7th Royal Fusiliers.

BRODIE—PETTIGREW.—On the 19th inst., at 17, Queen's-crescent, by the Rev. John Isdale, assisted by the Rev. James Douglas, M.A., John Ewan Brodie, M.D., to Mary Stuart, daughter of Matthew Pettigrew.

CHURCHOUSE—KING.—At East Haddon, Wm. Jnr. Franklin Churchouse, L.R.C.P.Ed., to Kate Emma, second daughter of George King, Esq., of East Haddon, Northamptonshire.

COURTENAY—AP-JOHN.—On the 20th inst., at St. Philip's Church, Kensington, W., Edward Maziere Courtenay, M.B., Limerick Asylum, to Alice, widow of the late George Atkins, Barrister-at-law, and youngest daughter of the late Rev. M. Lloyd Ap-John, of Linfield, and Rector of Ballybrood, co. Limerick, Ireland.

DAVIES—MCLAREN.—On Feb. 22nd, at All Saints' Church, Dunedin, N.Z., John Morgan Lloyd Davies, M.R.C.S., to Jessie Maud, third daughter of Robert McLaren, Esq., of Dunedin.

FOTHERGILL—WEATHERELL.—On the 21st inst., at the Parish Church of Elton, Notts, Thomas Prince Fothergill, M.D., to Eleanor Jane (Nora), eldest daughter of the late Robert Weatherell, Rector of Elton.

MACPHERSON—TAYLOR.—On the 20th inst., at St. Chrysostom's Church, Riverton, Francis Alexander Macpherson, L.R.C.P. and L.R.C.S.E., to Florence, elder daughter of the Rev. W. F. Taylor, D.D., Vicar, Hon. Canon of Liverpool, and Rural Dean of Walton.

PATON—AUSTIN.—On the 27th inst., at 7, Moray-place, Edinburgh, by the Rev. John Stuart, D.D., Frederick Erskine Paton, M.B., C.M., of Abergavenny, Monmouthshire, to Maggie, eldest daughter of the late Rev. John Mein Austin.

POWELL—SANDERS.—On the 20th inst., at Christ Church, Lee, by the Rev. Arthur Stevens, brother-in-law of the bride, assisted by the Rev. L. A. Smith, Vicar, Lewis B. Powell, M.R.C.S.Eng., to Edith, youngest daughter of the late Thomas Sanders, of Wheatley, Oxon.

WOODS—HEATLEY.—On the 20th inst., at St. Andrew's, S.W., Frank Woods, L.R.C.P. Lond., M.R.C.S., L.S.A., to Eva Carlota, youngest daughter of the late John D. Heatley, of Higham Hill, Walthamstow.

DEATHS.

CHATTO.—On the 19th inst., at Chapel-road, Notting-hill, John Chatto, M.R.C.S., Librarian to the Royal College of Surgeons of England, aged 77.

CROFTS.—On the 25th inst., at Church Gresley, near Burton-on-Trent, William Carrick Crofts, M.R.C.S.E., &c., aged 52. No cards.

GUTHRIE.—On the 18th inst., at Brechin, N.B., John Guthrie, M.D., in his 57th year.

HALKET.—On the 17th inst., at sea, on his homeward voyage from Australia, Laurence John Halket, L.R.C.P.Lond., third son of the late David Halket, of Newcastle-on-Tyne, formerly of Perth and London. Australian papers please copy.

HINGESTON.—On the 25th inst., at Lyme Regis, William Hingeston, M.R.C.S.

ILIFF.—On the 25th inst., at Kennington-park-road, S.E., William Tiffin Iliff, M.D.Lond., Medical Officer of Health for St. Mary, Newington, aged 63.

PATER.—On the 24th inst., at Oxford-terrace, Hyde-park, William Thompson Pater, M.R.C.S., late Medical Superintendent of the County Asylum, Stafford, aged 52.

TREVOR.—On the 26th inst., at Beaumaris, N. Wales, Arthur Tudor Humphreys Trevor, M.R.C.S., L.R.C.P.Lond., formerly of Iquique, West Coast of S. America, aged 42.

VARENNE.—On the 22nd inst., at Kelvedon, Essex, Ezekiel George Varenne, M.R.C.S., aged 75.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

Medical Diary for the ensuing Week.

Monday, May 2.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITALS.—Operations, 2 P.M., and each day in the week at the same hour.

ROYAL INSTITUTION.—1.30 P.M. Annual Meeting.

SOCIETY OF ARTS.—8 P.M. Mr. J. M. Thomson: The Chemistry of Substances taking part in Putrefaction and Antisepsis.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.—8 P.M. Mr. F. Henri Weiss: On the Destruction of a Permanent Tooth Pulp by an Alveolar Abscess attached to a Deciduous Molar.—Dr. St. George Elliott will show a New Hot-air Motor.—Mr. E. Lloyd Williams will exhibit a Hot-air Syringe.—A paper by Mr. Humphreys.—Mr. W. Hern: Cocaine as a Local Anæsthetic in Dental Surgery.—Dr. Geo. Cunningham: The Physiological Action of Cocaine.

MEDICAL SOCIETY OF LONDON.—8.30 P.M. Sir William Mac Cormac will deliver the Annual Oration, after which the President will hold a Reception, and a Conversazione will follow. The String Band of the Royal Artillery will be in attendance.

Tuesday, May 3.

GUY'S HOSPITAL.—Operations, 1.30 P.M. and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 1.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M.

ROYAL INSTITUTION.—3 P.M. Prof. W. E. Ayrton: Electricity.

PATHOLOGICAL SOCIETY OF LONDON.—8.30 P.M. Report of Morbid Growths Committee on Dr. Edmunds' Specimen of Horny Papilloma of Hand.—Mr. Hutchinson: Destructive Arthritis of Knee without Suppuration.—Mr. T. Smith: Senile Arthritis.—Mr. Hutchinson, jun.: Sarcoma (?) of Knee.—Dr. Pitt: Carcinoma of Spine and Liver.—Dr. Coupland and Dr. Pasteur: Diffuse Sarcoma of Spinal Pia Mater (two cases).—Dr. Maguire: Interstitial Aneurysm of Inter-auricular Septum.—Mr. R. W. Parker: Cases of Sarcoma in Children.—Mr. Lawson Tait: Tubal Pregnancy.—Dr. Payne: Multiple Neurofibromata in connexion with Molluscum Fibrosum.—Mr. Leopold Hudson: Tumour of Prostate. Card Specimens:—Mr. Fenwick: Urinary Tuberculosis with Multiple Calculi.—Dr. Barlow: Renal Sarcoma in a Child.—Mr. Page (for Mr. Raven): Sarcoma of Dorsal Vertebræ.—Mr. Shattock: Tubercular Arthritis (six cases).

Wednesday, May 4.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.

LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.

KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 2 P.M. Saturday, 1 P.M.

CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9 A.M. Saturday, same hour.

OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Specimens will be shown by Mr. Doran, Dr. John Phillips, Mr. Barton, Mr. Lawson Tait, and others.—Dr. Matthews Duncan: Hæmorrhagic Parametritis.—Dr. Lewers: On the Frequency of Pathological Conditions of the Fallopian Tubes as determined by Post-mortem Observations at the London Hospital.

Thursday, May 5.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Ophthalmic Operations, Friday, 1.30 P.M.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ROYAL INSTITUTION.—3 P.M. Prof. Dewar: The Chemistry of the Organic World.

HARVEIAN SOCIETY OF LONDON.—8.30 P.M. Mr. Hugh Owen Thomas: The Physical Signs of Disease and Recovery of the Hip-joint, with a Demonstration of the Mechanical Fixation of the Joint.—Dr. Stephen Mackenzie: Some cases of Hysteria.—Mr. A. Q. Silcock: A fatal case of Hysteria.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.—8.30 P.M. Living and Card Specimens at 8 P.M. Messrs. Critchett and Juler: (1) Guttate appearance of Fundus; (2) Peculiar Pigmentary Degeneration of Choroid.—Mr. Ernest Clarke: Improved Artificial Eyes. Papers:—Mr. W. Lang: (1) A fatal case of Meningitis after Excision of a Suppurating Globe; (2) On the Insertion of Glass Globes into Tenon's Capsule after Excision of the Eyeball.—Mr. Nettleship: (1) Three cases of Night-blindness, with peculiar Retinal Changes; (2) Two cases of Quinine Amblyopia.—Dr. Brailey: Recurrent Choroido-retinitis in region of Macula, probably an early stage of "central guttate choroiditis."—Mr. Mackinlay: Complete Self-enucleation of Eyeball.

Friday, May 6.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—9 P.M. Dr. Brunton: The Element of Truth in Popular Beliefs.

Saturday, May 7.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—3 P.M. Mr. R. Von Lendenfeld: Recent Researches on Sponges.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Stewart's Instruments.)

THE LANCET Office, April 28th, 1887.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Apl. 22	29·61	S.W.	53	49	96	62	46	...	Cloudy
,, 23	29·36	S.W.	51	48	88	61	47	·02	Cloudy
,, 24	29·36	S.W.	48	45	87	56	42	·17	Raining
,, 25	29·74	S.W.	49	44	80	52	42	·24	Cloudy
,, 26	30·08	W.	47	42	98	55	37	·15	Cloudy
,, 27	29·91	W.	44	40	93	53	38	·14	Cloudy
,, 28	30·01	W.	46	42	100	55	37	·27	Hazy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

ELECTION EXPENSES FUND OF B. W. RICHARDSON, M.D., F.R.S.

Treasurer's Account to April 22nd, 1887.

Dr.			
259 Receipts as per Counterfoil Receipt-book			£155 2 1
Cr.			
Printing	£98	12 6	
Postage	53	15 1	
Advertisements	22	19 6	
Gratuity to Porter	0	15 0	
			£155 2 1

Audited and found correct.

(Signed) F. H. ALDERSON, M.D., Hon. Treasurer.
ROBT. J. BANNING, M.D., } Hon. Secretaries.
CHAS. WELLS, M.D., }

Quebec Institute, Baker-street, W.

P.S.—The expenditure would have been somewhat larger had not Dr. Richardson defrayed some preliminary expenses and Dr. Danford Thomas kindly given £10 worth of stamps in addition to their subscriptions.

Mr. James Oliver.—The paper, if forwarded, shall have consideration.

M.B.—No.

OBSCURE NERVOUS AFFECTION.

To the Editors of THE LANCET.

SIRS,—Could any of your readers assist me in a case that has resisted all the ordinary forms of treatment for many months, and which is getting worse, in spite of iodide of potass., bicarb. potass., brom. potass., colchicum, Donovan's sol. of arsenic, &c. The patient, a lady over sixty years of age, is of a gouty family, but of active and very temperate habits. Her general health is good. About four years ago she was seized with numbness of the toes, which afterwards extended over the whole sole of one foot. Then the other foot became affected in the same way, and latterly the uppers of both feet as well as the soles. She feels as if walking on soft cushions, not pins and needles. Her walk on rising up is at first rather unsteady, and she kicks one foot against the other. But the knee-jerk is perfect in both, and she can walk or stand quite well with eyes closed. Moderate warmth makes them easier; but cold, or much heat, makes them feel more painful. Any hints as to treatment will be thankfully received by

Yours truly,
April 20th, 1887. PUZZLED.

REGISTRATION AND THE NEW MEDICAL ACT.

IN reply to numerous correspondents we may say that the new Act is not retrospective, and will not therefore affect gentlemen in respect of any qualifications already registered.

Massage is referred to an announcement in our issue of April 16th, p. 44 of advertisement sheet.

Dr. A. A. Smith.—The instrument lies at our office.

HOSPITALS FOR INFECTIOUS DISEASES.

Mr. E. Turner (Stourbridge).—It has been held that one bed per thousand of the population forms ample accommodation for the permanent wants of a district. But in every case sufficient land should be taken to admit of extensions, whether temporary or permanent, owing to emergencies or to increase of population. This estimate is, of course, only a general one, and the proportion of beds to population would have to be varied according as a large or small number of the inhabitants have such dwelling accommodation as admits of reasonable facilities for isolation. The handbook relating to this subject is the Supplement by the medical officer to the Tenth Annual Report of the Local Government Board—"On the Use and Influence of Hospitals for Infectious Diseases." This can be obtained as a Parliamentary paper. The first forty pages of this Report contain a summary of the whole volume. Another useful paper is one "On the Planning and Construction of Hospitals for Infectious Diseases," by the Architect of the Local Government Board, which is contained in the Transactions of the Epidemiological Society, New Series, vol. ii. (Shaw and Sons, Fetter-lane). A copy of the diagram of an isolation pavilion, recently issued, should also be procured by application to the Local Government Board.

Mr. J. Gowans.—Cassell's Domestic Medicine would probably answer the purpose.

"EXTIRPATION OF RUPTURED UTERUS."

To the Editors of THE LANCET.

SIRS,—Referring to the very interesting case described in your issue of April 23rd, in which Dr. Andrews performed abdominal section to enable him to deal with a rupture of the uterus and the hæmorrhage consequent thereon, allow me to endorse his comment that "such an operation ..... gives a chance to an otherwise hopeless case, and that it should be undertaken without hesitation under such circumstances." Dr. Andrews opened the abdomen, removed "a very large quantity of blood" from the peritoneal cavity, dealt with the rent in the uterus by removing the organ with its appendages, and completed the operation. But the patient barely survived the procedure, and unquestionably, as Dr. Andrews observes, the "hæmorrhage was the fatal factor in the case." My object in venturing to address you is to assert my belief that the fatal factor in such cases as these may be absolutely obviated by injecting about a pint of warm water (with or without the addition of a saline powder) into the veins. If circumstances permit the transfusion of blood, so much the more favourable will be the prognosis; but the intravenous injection of water or of saline fluid at 100° F. may generally be trusted as an efficient means of combating acute anæmia (the hæmorrhage having been arrested), in proof whereof allow me to refer to my paper on "Transfusion for Hæmorrhage in Military Surgery, published in THE LANCET of Jan. 15th, 1887.—I am, Sirs, your faithful servant,

Upper Brook-street, W., April 23rd, 1887. CHAS. R. JENNINGS.

LANGMORE DEFENCE FUND.

A SUM of about £103 is still required to settle the costs incurred by Dr. J. Wreford Langmore in defending this action, most unjustly brought against him. Further subscriptions are consequently needed, and may be paid to Mr. George Rastes, M.B., 60, Connaught-street, Hyde Park-square, London, W.

Third List.

Subscriptions announced			£118	8	6		
Dr. Wilson Fox ...	...		3	3	0		
Dr. S. O. Habershon	...		2	2	0		
Mr. Henry Morris	...		2	2	0		
Sir Edwin Saunders	...		3	2	0		
Dr. W. H. Allchin	...		1	1	0		
Mr. J. Bishopp ...	...		1	1	0		
Dr. G. F. Blandford	...	£1	1	0			
Mr. J. F. Churchill	...	1	1	0			
Dr. G. U. Dale	...	...	1	1	0		
Dr. Owen Pritchard	...	1	1	0			
Dr. Harrington Tuke	...	1	1	0			
Mr. M. J. Verdon	...	1	1	0			
Dr. H. W. Webster	...	0	10	6			

A Very Old Subscriber.—The M.B. of Dublin University is not a licence to practise surgery and midwifery. It is a qualification in medicine only. The University supplements it with licences and degrees in surgery and midwifery.

Inquirer had better apply to some large nurseryman.

Dr. McKee is thanked, but we had already made arrangements for a report.

MALIGNANT PUSTULE AND COMA.

To the Editors of THE LANCET.

SIRS,—I have little doubt that the convulsions and coma in the remarkable case of coma due to malignant pustule, reported by Mr. Reilly in your issue of April 23rd, resulted from cerebral meningeal hæmorrhage. There were at least two amongst the fatal cases of malignant pustule at Guy's, in the year 1884, during the latter part of which I was acting as surgical registrar, in which death was preceded by convulsions and coma. The necropsy in these cases revealed extensive hæmorrhage over the cortex of the cerebrum beneath the arachnoid. Of course, in addition to this, there were other lesions discovered characteristic of death from malignant pustule. I do not think we ought to be surprised when we meet with subarachnoid hæmorrhage in these cases, considering how frequently we meet with extravasations of blood under other serous surfaces, as the pleura, &c.; in fact, I should be inclined to look upon meningeal hæmorrhage, like œdema of the glottis, as not a very unfrequent complication which may directly induce a fatal termination in a case of malignant pustule. I am, Sirs, yours faithfully,

St. Thomas's-street, April 25th, 1887. L. A. DUNN, B.S.

THE LATE DR. CARRINGTON.

WE are asked to state that Mrs. Carrington and family desire to express their gratitude to the very many friends who have sympathised with them in their recent bereavement, and whom they find it impossible to address individually.

Mr. Charles Williams.—We cannot learn that Schwartze's Aural Surgery has been translated into English.

Mr. Strathearn (Govan).—The address of the Secretary is 25, Wynne-road, Brixton.

"FRIENDLY SOCIETIES' MEDICAL ASSOCIATIONS."

To the Editors of THE LANCET.

SIRS,—Your correspondent, "M.O., F.S.M. Assoc.," who appears so contented with his lot, does not consider the bearing of his position with regard to these monopolies in relation to the profession generally. Our experience in Loughborough is that the abuse of the "medical aid" is most flagrant. It includes professional men, tradespeople, the upper classes of artisans, and, in fact, makes a clean sweep of about 6000 people, out of a population of 18,000 of all classes and conditions. For this reason the medical men of the town have refused from the first to co-operate with the medical officer. An institution which has for its aim to obtain medical services at the cheapest rate, and whose payment of their medical man would compare unfavourably with that for service under the Local Government Board, in many instances, cannot command our support, when we consider for whom it partly, if not mainly, exists, not the poor of the labouring classes, but the thrifty and well-to-do artisans, the prosperous tradesmen (small and large), and professional men, not to mention a large number of the publicans. Your correspondent may, from his commercial point of view, consider that his political economy is good, but I beg to suggest that the lowering of our fees to the rate of 2*d.*, 3*d.*, or 4*d.* for a consultation in the case of people such as I have indicated is not good either for the medical profession or the general public. It is defrauding the really necessitous in the interest of the mean, who in their saving do not consider how they save. Than this no subject, to my mind, is more urgent. We wish for equal titles for medical men, and for conjoint examining boards, but the "battle of the shops" is quite secondary to the question of whether general practice is to be swamped in a co-operative medical store. If the Council would take up the questions of medical charity, provident and otherwise, and friendly societies' associations, and make some effort to prevent the great abuse at present existing, it would be doing more useful work than altering regulations as to preliminary education. And I believe that a commission instituted by THE LANCET to investigate these matters would open the eyes of the profession to the snare which is gradually being thrown around it. If these miserable contracts become general, we shall cease to be a liberal profession, the general practitioner will be merged altogether in the "club doctor," and will become more than ever an over-worked and subservient drudge.

I am, Sirs, your obedient servant,

Loughborough, April 16th, 1887. J. B. PIKE.

To the Editors of THE LANCET.

SIRS,—The medical officer whose letter appeared in your issue of the 16th inst. is to be congratulated on his good fortune. The association I was in contained over 4000 members, and the committee were composed of working men who appeared to have no respect whatever for the surgeons. The work was heavy. The hours at the surgery were 9 to 10 A.M., 1 to 2 and 6 to 8 P.M., and all know how patients rush in at the last and keep one at work long after the time for leaving. Visiting was done between times. One of the worst faults of this system is the liberty people with a morbid faith in medicine have to come and demand a bottle of medicine whenever they like. For advice they care nothing, and the surgeon is reduced to little better than a puppet. If "M.O., F.S.M. Assoc." had his members increased to 4000 and the committee of that peculiar democratic character that tries to raise itself by degrading others, and with no increase of salary, he would form a very different opinion of such places. The life of an assistant with a general practitioner is better, as far as social position goes. In an Association one's social position is sacrificed; but if abuses were cleared out, all fees given to the surgeon instead of to the committee, and patients taught to respect a surgeon and his house, life would be vastly preferable there than in a position where you have to please two parties—viz., the principal and the patients—and be at the mercy of the whims of both. I cannot see sufficient reason why all fees subscribed by members for the surgeon should go to the committee, and only a portion be handed over to the surgeon. The surgeon should receive all fees, supply drugs, and the clubs should pay the expenses of management. The present club system is disagreeable and wrongly based, as members, when once a surgeon is chosen, are bound to go to him, however much they may dislike him, or pay another, and the surgeon is obliged to attend to many who he knows would rather not have him. This makes club work almost unbearable at times, and often leads to such bickerings and quarrels that many surgeons look forward to the day when they can get quit of clubs and others refuse to have them. A much better plan would be for each club to have a list of surgeons willing to take club members, each member to choose for himself. A surgeon would receive from the various clubs his list of members. This would give more freedom to both parties and do away with three-quarters of the present causes for bitterness and complaints.—I am, Sirs, yours sincerely,

April, 1887. M.B.

THE FOOD OF PARIS.

THE last municipal report relating to the sale and consumption of food in Paris contains an estimate showing the average consumption per head of the population, and from this it would appear that each inhabitant eats 169 lb. of meat, 9 lb. of "triperie" (which includes calves' head, tongue, kidneys, &c.), 23 lb. of fish, 25 lb. of poultry, 8 lb. of oysters, 17 lb. of butter, 5 lb. of cheese, and 15 dozen eggs. The report does not give the quantity of bread eaten by the population of Paris, but the average price of it during 1886 was as nearly as possible, allowing for the fractional difference of money, 3½*d.* per lb. The total quantity of meat consumed during last year in Paris was about 150,000 tons weight, this representing 302,894 head of cattle, 188,595 calves, 1,979,526 sheep, and 352,001 pigs, while in addition to this nearly 4000 tons of horse, mule, and donkey flesh were sold in the city, at the average wholesale rate of 3*d.* per lb. The quantity of fish sold was considerably in excess of the total for the previous year, the increase being most marked in the oyster trade, the total weight being greater by 1720 tons.

Sigma (Ostend).—The International Congress of Hygiene will be held between Sept. 26th and Oct. 2nd at Vienna. The first day's sitting will be signalised by a paper on the Mode of Propagation of Abdominal Typhus, by Dr. P. Brouardel, Dean of the Medical Faculty of Paris.

Dr. Bell Taylor.—No.

PROPOSED ARCHITECTS AND ENGINEERS' REGISTRATION ACT.

To the Editors of THE LANCET.

SIRS,—Will you allow us to call the attention of your readers to an important movement contemplated by the architectural profession? At the present time it is open to anyone, however ignorant he may be of sanitary science and construction, to practise as an architect, to the great danger of the general health of the public. In order to put an end to this unsatisfactory state of matters, the Architectural Federation Committee (a body elected for the special purpose at a public conference of architects held in April last) are endeavouring to obtain for the profession an Act of Parliament, such as the Medical Act, for the compulsory registration and proper education and examination hereafter of all desiring to enter its ranks. The proposed Bill is now drafted, and a public meeting is to be held on Wednesday, May 4th, at 4 o'clock, at St. James's Hall, Regent-street, London, W., when the principles of the Bill will be discussed. It must be well known to most of your readers that a vast amount of illness which comes under their notice is caused directly or indirectly by badly-drained, ill-ventilated, damp or otherwise faultily-constructed dwellings. It is hoped, therefore, that all who feel the necessity of architects being properly educated, especially in matters of sanitary science, of which so many are so utterly ignorant, will endeavour to attend.

We are, Sirs, your obedient servants,

HUGH ROUMIEN GOUGH, Chairman.
April 23th, 1887. EDGAR FARMAN, Hon. Secretary.

THE RED CORPUSCLES.

J. G. S. (Barrow-in-Furness).—At the last sitting of the Reale Accademia di Lincei of Rome (the Italian equivalent to our Royal Society) the following were among the "Note" presented for insertion in the "Atti":—(1) Cadaveric Alterations of the Red Corpuscles and the Formation of the Coagulum; (2) Formation of Pus from the Red Corpuscles of the Blood; (3) How Leucocytes are derived from the Red Corpuscles of the Blood; (4) Degeneration of the Red Corpuscles of the Blood. The series of "Note" were all from the pen of Prof. A. Mosso of Turin.

Mr. D. Donald.—The attention of the body from whom the gentleman derives his qualification should be drawn to the matter.

"INHALATION OF COAL-GAS AS A SOURCE OF DISEASE."

To the Editors of THE LANCET.

SIRS,—The action of coal-gas on the throat and head has been underestimated. I have had most unpleasant experience. I live in an old house, and although the gas fittings in the bedrooms were massive and good still the gas escaped. I got a clever workman to come down from London, and he told me that every joint wanted oiling; I found he was quite correct, and the rooms are free from smell. He further said that people expected the joints to remain tight for years without any attention. Another great safeguard against escapes is to have the tap on the fixed end of the bracket and not on the branches, for then the pressure of gas does not act on the joints in the bracket.

I am, Sirs, yours faithfully,

April 26th, 1887. THOS. CHRISTY.

OBESITY.

To the Editors of THE LANCET.

SIRS,—Would any of your readers be so kind as to inform a brother practitioner as to what is practically the best treatment to be adopted in a case of excessive obesity? I have unfortunately had no experience in the treatment of such cases.—I am, Sirs, yours faithfully,

April 25th, 1887. A SUBSCRIBER.

CIPRIANI THE FORK-SWALLOWER.

FIFTEEN years ago, it may be remembered, Egisto Cipriani, a journeyman printer of Florence, as the result of a bet, introduced a fork down the œsophagus into his stomach. Every method short of surgical interference was tried to extract it, but in vain, Cipriani meanwhile being from time to time so ill as to have to take to bed. Prof. Rosati, the eminent surgeon of Florence, has at length persuaded him to submit to the operation of gastrotomy, the result of which will shortly be made known.

Dr. James G. Robertson.—St. Thomas's Home, in connexion with St. Thomas's Hospital, would probably receive the patient.

Homœopathist should send the documents to a journal devoted to the advocacy of the system.

Dr. Aikman (Guernsey).—The article had been arranged for.

Mr. Stewart.—In an early number.

THE OPEN-AIR TREATMENT OF PHTHISIS.

To the Editors of THE LANCET.

SIRS,—Dr. Burney Yeo, in his most interesting and instructive lecture upon Gaseous Rectal Medication in Pulmonary Affections (THE LANCET, April 16th, p. 761), alludes to a case which I noted in the *British Medical Journal*, Dec. 1886, p. 1098, as illustrating the value of open-air treatment of phthisis, many highly interesting papers and cases of which mode of treatment are quoted in Sections 695: 6 of the Medical Digest and Appendix. Dr. Yeo, by his remarks, seems to infer that the vast benefit derived by the open-air treatment of this case was really due to the use of antiseptics. This I am not at all inclined to admit, for in two other members of the same family antiseptic treatment alone was most carefully carried out, with, alas, unsatisfactory results; whereas my patient, living day and night in the open air, rapidly recovered, his health being at the present time most satisfactory.

I am, Sirs, yours obediently,

RICHARD NEALE, M.D. Lond.

Boundary-road, N.W., April 27th, 1887.

Mr. J. Jackson (Sowerby).—Our correspondent appears to have been rather hardly used.

Dr. Lowers.—The paper, if sent, shall receive attention.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Savage, London; Dr. Horrocks, London; Mr. Blackett, London; Dr. Gale, Guildford; Dr. Blanc, Cannes; Dr. Auld, Wick; Dr. Lavers, Wandsworth; Mr. Nathan; Dr. J. Harris, Norwood; Mr. Prenslau, Liverpool; Dr. N. W. Bouras; London; Dr. Urban Pritchard; London; Mr. J. M. Mason, Glasgow; Dr. Rosenau, Wiesbaden; Mr. Reginald Harrison, Liverpool; Mr. C. H. Robinson, Dublin; Messrs. Gough and Farman, London; Dr. Aikman, Guernsey; Mr. D. Lloyd, Newcastle Emlyn; Dr. P. Hood, London; Mr. J. H. Morgan, London; Mr. J. T. Little, London; Mr. W. J. Nicholls, London; Mr. W. H. R. Stewart, London; Mr. C. E. Jennings, London; Dr. Robb, Glasgow; Mr. T. Christy, London; Mr. Villanueva, London; Mr. Cocks; Mr. Malden, Dorchester; Dr. W. P. Mears; Mr. J. H. Hughes, Droitwich; Mr. J. Knight, Manchester; Mr. W. T. Brooks, Oxford; Dr. Neufield, Manchester; Miss Boor, Nottingham; Mr. Lenney, Hitchin; Mr. Allen, Dulwich; Dr. Maynard, Erith; Mr. Ford, Devonport; Mr. Young, Glasgow; Dr. Fraser, St. John's, Newfoundland; Messrs. Butterfield and Co., Northampton; Mr. Elliott, Carlisle; Messrs. Burroughs and Co., London; Mr. Gillander, Newcastle-on-Tyne; Messrs. Macmillan and Co., London; Mr. Greenwood, Liverpool; Messrs. Bromley and Co., Lincoln; Mr. Evans, Oswestry; Mr. Kemp, Hull; Messrs. Blake and Co., Leeds; Mr. Hamilton, Monaco; Mr. Stewart; Mr. Marriott, London; Mrs. Brown, Bournemouth; Mrs. Gray, Banff; Mr. Walker, Glasgow; Dr. Macnamara, Dublin; Mr. Das, Calcutta; Messrs. Spring and Co., London; Dr. MacAlister, Cambridge; Mr. Horrocks, Pennsylvania; Miss Aldridge, Rochdale; Mr. Medland, London; Mr. Wright, Romford; Mr. Birchall, Liverpool; Mr. Berthier, Paris; Mr. Elliott, London; Mr. Robertson, Edinburgh; Mr. Rubenstein, Liverpool; Mr. Fairbank, Windsor; Mr. Hilliard, Aylesbury; Mr. Harrison, Port Elizabeth; Mr. Droonold, Carmarthen; Mr. F. W. Clark, Thornton Heath; Mr. J. Milner, Hayes; Mr. Banning, London; Mr. Marcus Gunn, London; Dr. Skelton, Downend; Mr. J. Gowans, Broughty Ferry; Mr. M. Copeman, London; Mr. A. Drysdale; Messrs. King and Co., London; Mr. G. C. Stewart, London; Messrs. Griffin and Co., London; Mr. Jackson, Somerby; Mr. Hope, London; Mr. T. Cook, London; Mr. Chrismas, Hemel Hempstead; Messrs. Lee and Martin, Birmingham; Dr. G. Macdonald, London; Mr. T. Walker, Wakefield; Mr. H. B. Wood, Cranbrook; Mr. L. A. Dunn, London; Mr. D. Donald, Streatham; Miss Butterworth, London; Mr. Mayo, Yarmouth; Mr. Wakefield, Earlswood; Mr. Grant, London; Mr. Amos, Newcastle-on-Tyne; Mr. Howes, Stafford; Mr. Wigglesworth, Ashford; H. S.; Amicus; No Humbug; Surgeon; L. M.; Melbourne; One of Them;

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Churton, Leeds; Sir W. Dalby, London; Mr. Juler, London; Messrs. Smith and Co., London; Mr. Letterschofen, Homburg; Mr. Manby, Sierra Leone; Mr. Green, Hull; Mr. Smith, St. Austell; Messrs. Macfarlan and Co., London; Mr. James, Chorley; Mr. Davison; Messrs. Lang and Barker, Edinburgh; Mr. Douglas, Middlesbro'; Messrs. Slinger and Son, York; Mr. Webb, Kingsbridge; Mr. Smailes; Messrs. Duncan and Co., Edinburgh; Mr. McMahon, Dartford; Messrs. Richardson and Co., Leicester; Mr. Tresise, Burton-on-Trent; Dr. Adam, West Malling; Mr. Botwood, Ipswich; Mr. Taaffe; Messrs. Locflund and Co., London; Dr. Williams, Mold; Dr. Kerr, London; Messrs. Clark and Co., York; Mr. Gant, London; Dr. Habershon; Messrs. Oliver and Boyd, Edinburgh; Mr. Brockelbank, Islington; Mr. Mayo, Great Yarmouth; Mr. Lloyd, Lampeter; Mr. Bigg, London; Messrs. Kilner Bros., London; Mr. Whateley, Birmingham; Messrs. Pownceby and Co., London; Dr. Watkins, Newton-le-Willows; Messrs. Deighton and Co., Cambridge; Mr. Burgess, Manchester; Messrs. Isaacs and Co., London; Dr. Keay, Polton; Mr. Cosburn, Newbury; Dr. Tetley, Keighley; Dr. Lindsay, Belfast; Mr. Hamilton, London; Mr. Joslen, Workington; Mr. Curran, Bridgwater; Mr. Graham, Godalming; Mr. Draper, Huddersfield; Mr. Williams, Oxford; Mr. Skrimshire, Holt; Dr. Davies, Bridgend; Dr. Leeson, Bridgend; Mr. Fysh, Limehouse; Mr. Burns, Ipswich; Mr. Morton, Glasgow; Mr. Browning, Manchester; Mr. Brown, York; Mr. Griffiths, Ennis; Mr. Brown, Westgate-on-Sea; Dr. Parslow, Forest-hill; Messrs. R. Smith and Co., London; Miss Townson, Chester; Messrs. Bowes and Co., Herne Bay; Mr. Mundy, Hampstead; Mr. Rideal, London; Messrs. Hertz and Co., London; Mr. Affick, Manchester; Messrs. Robbins and Co., London; Dr. Fleck, Wycombe; Miss Landal, Bath; Mr. Holden, Folkestone; Mr. Cook, Lowestoft; Mr. Evans, Oswestry; Mr. Wilson, Rastrick; Messrs. Bennett Bros., Salisbury; Messrs. Beal and Sons, Brighton; Mr. Mawson, Bradford; A. B., Brighton; Medicus; Cantab., Burton-on-Trent; Medicus, Matlock; B., Lewes; South Coast; Surgeon, Minchinhampton; J. E. B., Liverpool; R. A., Ben Rhydding; A. B., Bridgend; M.D., Southsea; H., Ilfracombe; Lady Superintendent, Bath; Matron, Bedford; Dr. H. F.; Medicus, Woodpan; S., London; S. R. B., Brighton; K., London; Medicus, Mile-end; A. Z., Surgeon; C. B.; Matron, Rotherham; P., Hull.

Advocate of India, Guy's Hospital Gazette, Philadelphia Public Ledger, Essex Standard, Reading Mercury, Liverpool Evening Express, Carmarthen Weekly Reporter, Day of Doom, &c., have been received.

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Agent for the Advertising Department in France—J. ASTIER, 66, Rue Caumartin, Paris.